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EDITED BY

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CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

On Adulterations.—A Lecture delivered before the Pharmaceutical Association of the Province of Quebec. By G. P. Girdwood, M.D., M.R.C.S., England, Professor of Practical Chemistry, McGill University.

The notices of this meeting state, under the head of business of the evening, Lecture on Adulteration, by myself. When asked to give a lecture, I felt a difficulty in finding a subject which I thought would be acceptable. I selected my present subject as being one on which all present would be able to express an opinion, and in the hope that it would lead to a discussion, which would probably be more advantageous to all parties than the few remarks which I may offer, and which you have kindly dignified by the title of Lecture. You have all heard or read of the Adulteration of Food and Drug Act, as it is called in the old country, and of its working, and doubtless have been led to the now celebrated Citrate of Magnesia case which has recently formed a subject of very lengthy discussion in the public print.

I will, firstly, try and define the meaning of the word adulteration, for on the meaning of the word everything in the shape of argument depends. I doubt not you have all a ready answer to the question, What constitutes an adulteration? and every man in his own mind has a vague idea of what he means when he uses the term.

In its derivation from the Latin, "ad to" and "alter

another," we have a definition, in its strictest sense it is the admixture of one thing with another.

Dr. Johnson, in his Dictionary, says :—

"To adulterate," to corrupt by some foreign admixture, to contaminate.

"Common pot ashes, bought of them that sell it in "shops, who are not so foolishly knavish as to adulterate "them with salt-petre, which is much dearer than pot-"ashes."—*Boyle.*

"'Adulterate,' adj. 2nd. Corrupted with some foreign "mixture. It does indeed differ no more than the maker "of adulterate wares does from the vendor of them."—*Government of the Tongue.*

"They may have all their gold and silver; and may "keep their adulterate copper at home."—*Swift's Miscellanies.*

"Adulteration," the act of adulterating or corrupting by foreign mixture; contamination.

"To make the compound pass for the rich metal, simply "is an adulteration or counterfeiting; but if it be done "avowedly, and without disguising it, it may be a great "saving of the richer metal."—*Bacon's Natural History.*

"The state of being adulterated or contaminated, such "translations are like the adulterations of the noblest "wines; where something of the colour, spirit, and flavour "will remain."—*Felton on the Classics.*

These quotations from standard authors show the sense in which the word has been used so far as connected with my present subject; but still this definition does not altogether please me; it is difficult exactly to give a definition that meets the meaning of the word as used at the present day; for the meaning of words is constantly undergoing change, and that, perhaps, may be the reason for a definition of the word being left to the magistrates to decide, by the framers of the Imperial Act.

As in this country the Legislature copies the Acts of Great Britain, when it can, we may expect some such Act

will, ere long, be brought forward here. In fact the thin end of the wedge is already driven in, in the late City bye-law about the adulteration of milk, and the question is just now again brought up by the butter frauds which have lately occurred.

It will, therefore, be well to look into this subject, so that when the time comes a reasonable and intelligent Act may be passed if it become necessary.

As a matter of course, those articles which affect us immediately will be the first to which attention will be paid—food and drugs. Food will only affect you as a member of the community, but drugs, and I may add chemicals, affect your business particularly.

I have not been able to obtain a copy of the Imperial Act, and, therefore, can only judge of its working by the reports which are contained in the journals to which I have access.

It will be well now to go back to a history of the conditions which brought about the need of this law. That it has been the custom for men to enrich themselves at the expense of others is evident, and this lies at the bottom of all adulterations, properly so-called, and I will here add what I take it is wanting to complete Dr. Johnson's definition, it is that, the admixture of foreign substance must be made not only to corrupt, but it must be made purposely with intent to increase the profit and thereby to deceive.

The earliest adulterations were probably practiced in the noble metals, as being least easy of detection and as producing the largest results, and the earliest laws on the subject, apply to silver and gold, where we find the terms "sterling" and "standard" in common use, denoting a certain value of either metal, not denoting that the metal is pure or fine, as it is termed, for by law all silver and gold wares are permitted to be adulterated with some baser metal, the added metal being termed "allay" or "alloy" from "a la loi" to the law, and the whole is term-

ed "standard" or "sterling." The word Sterling, Camden, in writing of Stirling Castle, says :—

"They are much mistaken who think that our good and lawful money of England commonly called sterling money, takes its name from hence; for that came from the Germans, who were termed Easterlings by the English, from their living eastward, and who were first called on by King John to reduce the silver to its due fineness, and such money in ancient writings is called Easterlings."

This admixture with baser metals is necessary to the due working of the gold and silver ; and is thus noticed in "The Touchstone of Gold and Silver wares." "Our forefathers considering that silver in its finest degree would be too soft for use and service (for the finest silver is almost as soft as lead) did consult together to reduce or harden the silver (by allaying it with baser metal) to such a degree that it might be both serviceable in the works and also in the wearing keep its native whiteness."

We have also the authority of Hudibras –

"For fools are stubborn in the way
As coins are hardened by th' allay."

Therefore this depreciation by admixture of a baser metal is not an adulteration, but is made really to give to the fine metals a durability they do not possess of themselves ; and at as early a date as Edward the First, laws were passed regulating the amount of alloy to be used in the manufacture of silver and gold wares. Similar laws are still in force in England to the present day.

"Ale was known and made by the Egyptians 404 B. C. It is mentioned by Xenophon in 401 B. C. The Romans and Germans made it from corn. Ale houses are mentioned in the laws of Ina, King of Wessex, A.D. 688. Booths were set up in England in 728, under law, and various laws were subsequently passed. One in the reign of Henry the Eighth, to prevent the use of hops, which were first introduced from Flanders ; and the City of London petitioned the Parliament against two anuisances. These were, New-

castle coals, in regard to their stench, and hops, in regard they would spoil the taste of drink, and endanger the people." So here we see that what was considered an adulteration in the days of Bluff Harry, is now no longer an adulteration.

Passing by other things I come to our own time, when we find that it was customary to mix all sorts of things with something else, either to produce an artificial colour not indigenous to the substance itself, or to add a flavour, or by adding something cheaper to make the substance pass muster as what it purported to be. These practices would more properly come under the head of adulterations. This state of things at last reached such a point that the London *Lancet* called public attention to the subject by its "Analytical Sanitary Commission," wherein the editors sought to point out the extent of the practice, by purchasing articles at different shops throughout the metropolis, and giving an analysis of these samples to the public.

I have now stated what, I believe you will all agree with me, is an adulteration, and I have traced up the practice from early days to our present time. Let us for a few moments examine into the causes which lead to adulterations, and lastly consider the best means of preventing them.

As to cause, I should say it is manifold. First, cupidity on the part of the merchant, manufacturer, or tradesman, who either manufactures an adulterated article, or who adulterate a pure article and resell it again, or who still further adulterates an already adulterated article.

The desire of the manufacturer, merchant, or tradesman to undersell his neighbour. And lastly, the vitiated taste of the public who has been taught to prefer the adulterated article to the pure, or the desire of obtaining inexpensive (not cheap, for the cheapest are often, after all, the worst and dearest) articles for consumption, regardless of quality.

If we come to ask what are the articles that are commonly adulterated, I would answer almost every article

sold is more or less the object of adulteration. The old colloquy between the sanctified grocer and his apprentice, has become proverbial: "John. Yes sir. Have you dusted the pepper? Yes sir. Have you floured the mustard? Yes sir. Have you sanded the sugar? Yes sir. Then come to prayers," typifies the retailer who trys to make his wares do duty for a larger amount of money than they should. Besides these articles which have been proved to be largely adulterated, may be mentioned in this trade, anchovies and anchovy paste mixed with red lead, to give them a brilliant colour. This I saw done in one of the largest manufactories in London, and, on asking, was told, "Oh yes, we make pure anchovy paste, but it has but a very small sale, the public think it adulterated." In pickles copper is constantly added to give a fine green colour. I once was out in the backwoods eating lunch at a country inn, with a friend, to whom I remarked that the pickles looked suspicious, and taking a three-pronged steel fork I set it in the pickles, and in a few moments it was covered with a beautiful copper covering. The old landlady admitted they were home made, and she had put in a little "werdigrease to give um a colour." To mention coffee and chicory would be stale to you, and roast beans for chicory.

Tea with dried second hand tea leaves, dried leaves of other plants, faced with gypsum, soapstones, prussian blue, yellow ochre, iron filings, and sand, and in this particular article we find not only merchants in the country, importers, and retailers adulterating and selling such mixtures, but John Chinaman, either setting the example or imitating his barbarian customers, manufactures his lie tea out of plaster of Paris most ingeniously rolled up to represent tea. Indigo made up of prussian blue and plaster of Paris. White lead made up of zinc white and sulphate of barytes. Wooden nutmegs and hams, etc. In drugs, opium adulterated, in Turkey, with dirt and seeds and leaves that do not belong to it. Oils of various kinds essential and fixed.

Wines, bread, etc., in fact everything where the ingenuity of man can devise a fraud on his neighbour, so as to make a little more profit. Some of these adulterations are harmless, except pecuniarily. Others, however, are injurious to health. The former may be left to be dealt with by the ordinary laws, but where health is concerned it is another matter, Then the law should step in and say this must not be, and should appoint persons to carry out that law.

As to the best mode of preventing adulterations, I would suggest, a more enlightened and extended education, on all points, moral as well as physical and intellectual.

Moral education will prevent a man from defrauding his neighbour, physical will make him ashamed of such an act, and intellectual will enable him to detect it in others, and now gentlemen, more especially my younger hearers, I would advise you for this purpose to study hard at chemistry, and I cannot better close my remarks than by reading a portion of Mr. Standford's address to the Glasgow Philosophical Society, Chemical Section, Dec. 8, 1873.

"It had at last been admitted that the three R's did not *entirely* qualify a boy for society, and that even Latin and Greek, however well caned or birched into him, were not a *perfect* mental training. We had awakened at last to the belief that he ought to know *something* about the air he breathes, the food he eats, and the fluids he drinks. Some sanguine individuals had thought that even the earth he lives on should not be in every sense beneath his notice. Physical science as a mental training must sooner or later be recognized. Even with very young boys there could be no more valuable study than qualitative analysis; he knew of nothing which so easily brought out the powers of observation and reasoning, and these powers would retain their influence on the mind long after the problems of Euclid had faded from the memory; Humboldt says: "To behold is not necessarily to observe, and the power of comparing and combining is only to be obtained by education. It is much to be regretted that habits of exact

observation are not cultivated in our schools: to this deficiency may be traced much of the fallacious reasoning, the false philosophy, which prevails.

"The late Dr. Guthrie, in his "Autobiography," did not lament the accident which made him substitute the study of physical science for that of mathematics. Faraday's discoveries showed that the former was much more useful practically than the latter, and the minds of these two men in their breadth, and their depth, and their fulness, showed the value of science teaching. We might look confidently for a large spread of this teaching in the present century.

"The Adulteration Act would, when it was properly amended, and made universally compulsory, give increased employment to a large number of chemists, and even now the appointment of Medical Officers of Health in many places showed that the right men could not be got in sufficient number, or that the qualifications for the office were entirely misunderstood. Of all analysis there was nothing so difficult as the detection of adulterations; it required the very highest qualifications—not only the most consummate facility in ordinary analysis, but a large experience of trade, and a perfect knowledge of Materia Medica, and of the sources or manufacture of all our necessities.

"Unfortunately, it had hitherto been mostly in the hands of microscopists; but now, when we were to punish the delinquents, we must have exact chemical quantitative evidence. In many cases the methods to attain this had yet to be discovered.

Case of Double Mammary Abscess occurring ten days after delivery. Syphilitic History.—Use of drainage tube. —Recovery. By T. JOHNSON ALLOWAY, M.D., L.R.C. S.E.; L. R. C. P. EDIN; late H. M. Royal Navy.

The subject of the following case, an apparently healthy young English woman, aged 24, was attended in her confine-

ment by me, on the 3rd of January last, giving birth to a full-termed, healthy child. This was her second child, the first was still-born, at seven months maturity. On the 11th January I was unexpectedly called away from town and on my return, on the morning of the 13th, I found a message awaiting me, to attend as soon as possible. On my arrival I found her out of bed, lying upon a sofa, suffering intense pain in both breasts, which were greatly enlarged and so tender that she would scarcely allow me to examine them. From the left breast a purulent discharge was freely oozing through a small ulcerated opening, about half an inch above the nipple. There was no opening on the right one as yet, but distinct fluctuation could be felt exactly in the same position, viz., just over the nipple. I, at once, passed a bistoury into the opening of the left breast, enlarging it and allowing a free discharge of creamy pus, which when evacuated amounted to about oz. iv. I then opened the abscess in the other breast, in its most pendent part, which was just above the nipple, obtaining from it about oz. iii. of pus. She was now placed in bed, with hot, carbolised poultices applied and ordered to be changed every four hours. Ordered iodide of quinine, with 6 oz. of wine daily, and bowels justly regulated.

During the following six or seven days I removed, by gentle pressure, large quantities of pus, at the morning and evening visits. Her pulse continued very high throughout, ranging from 140 to 150. An opiate was occasionally administered at bed time, to relieve pain, etc.

On the 20th, fresh abscesses began to appear and point at the most pendent part of both breasts, when Dr. Roddick kindly assisted me in placing her under chloroform and passing a drainage tube transversely through the submammary areolar tissues of each breast, by which we obtained a large quantity of pus. From each of the openings made for the tubes, communications could be obtained with the first formed and superior opening, traversing the centre of each breast in several directions, showing that

the organs were broken down very extensively by the suppurative process, and that the gland structure itself was much involved. Poultices were now applied as before, iron, quinine, pot., chlor., and digitalis ordered with oz. ii. brandy, to be increased to oz. x. daily. From this date up to the 25th, both breasts continued to improve, the discharge diminishing, pain, swelling, and all inflammatory symptoms disappearing daily. But in the upper and outer part of the left breast, fresh abscesses began to appear, involving the glands of the axilla, and causing a good deal of pain. These abscesses seemed to be as yet but sub-mammary and local in character. I wished, therefore, to open them at once, but she would not allow me, fearing that she would faint from her weakened condition. Dr. Roddick again assisted me, when I freely incised three more abscesses, under chloroform, obtaining about oz. i. of pus in all. Drainage tubes were now removed, and poultices continued. For the next few days she continued very low, from the exhaustive drain her system had suffered. Her pulse remained all the time very high but full and strong, due, I imagine, to the influence of proximal irritation upon the heart itself, and to the exhaustive drain acting upon the nervous system generally, I may here remark that although she was taking m xx. doses of the tinct. digitalis every four hours, the heart's action, which sometimes ran as high as 165, was not in the slightest degree influenced by the drug.

28th.—Discharge from both breasts now almost ceased, appetite returning. Pulse still very high. Applied carbolic lotion dressing to both breasts. Tonic mixture continued, with wine, brandy omitted. Ordered small doses of green iodide mercury, the reason for which will be seen hereafter. The principal food she had taken throughout consisted of beef tea and milk, occasionally with an egg beaten up in the latter. By the end of the first week in February, she had sufficiently recovered to walk out and resume her household duties.

In connection with this case there is an interesting fact I may here state, viz.: A syphilitic history. The patient states that about three years ago, just before the premature birth of her first child, a rash broke out over her body which formed into "boils," then dried up and fell off in scabs, with the exception of several large ones on the anterior tibial aspect of the right leg, which coalesced and formed an ulcer somewhat larger than a walnut; this was probably rupia. Nocturnal pains troubled her a good deal, her appetite failed, she lost flesh, and became very miserable, so much so that her friends thought she was consumptive. Up to January, 1873, when she came to me for the first time, she had applied several remedies to the ulcer, but obtained no relief. She then also told me the very important fact that her husband had an ulcer on his leg, which had existed for some time, but for the relief of which he would seek no treatment. On questioning him, I satisfied myself that he was the subject of syphilis. I at once completely cauterised the ulcer on her leg with the acid nitrate of mercury, followed by linseed poultices, and placed her on hyd. iodid virid, potass iodid, tinct. cinchonae, etc. Next day carbolic oil dressing (1-40) well protected by oiled-silk, was applied, leg bandaged and dressing changed twice a day. On the third day the green iodide affected her bowels, when I added small doses of tinct. opii., which at once counteracted that tendency.

On the fifth day she stated that she had rested comparatively well the previous night, and felt altogether much relieved.

The ulcer from this time began to improve and rapidly heal, and was completely closed on the twelfth day. She now discontinued the iodide mixture, and in its place I ordered hydrg. c. cretae gr. iii. terdie, which she continued for about ten days, when she began to gain flesh and spirits, and considered herself well. I saw her no more until the present confinement trouble.

In conclusion, I wish to draw attention to one or two important facts in connection with this case.

Firstly, That the woman had contracted syphilis from her husband, through the medium of the child-bearing process; the disease appearing in the form of secondary manifestations.

Secondly. That she obtained a *cure* of that disease, so far as enjoying complete immunity from its outward effects for twelve months. From this it will be seen that I wish to impute to syphilis, as a blood disease, one of the links of the chain of causation, in the production of this double mammary affection; and this is evident for the following reasons:—

Firstly. Because the disease set in simultaneously in both breasts, and with very unusual severity, which we rarely see in uncomplicated cases. The converse application of this argument is the same as that used by Mr. Campbell De Morgan in his paper on cancer, read before the Pathological Society of London, by which he proves cancer *not* to be of necessity a blood disease.

Secondly. Because there was a return of the old nocturnal pains, headache, etc., shortly after the confinement and with the setting in of the mammary trouble. These two circumstances, it will be seen, form strong bases for the supposition of there being traces of the syphilitic poison still lurking in the system, and that the mild, specific course of treatment she had undergone twelve months previously had not eradicated, but merely rendered latent the disease for a time, awaiting, as it was, the opportunity of some slight exciting cause to make itself manifest again. This is what we now know to be the case. According to the late teachings of Mr. Jonathan Hutchinson, the system can be freed *completely* or *partially* from the poison of syphilis through the agency of the antidotal properties of mercury, the result depending upon the mode of administration and length of the course to which the patient is subjected. This is but one of the many examples we see of the peculiar and unexpected phases in which syphilis is capable of showing itself in an indirect manner.

Whether it is through the agency of a pathological cause or the revolutionary changes produced in the system by a physiological process, with excited functional activity in a part, is, in all probability, a matter of accident.

In the above case I could find no local cause whatever to account for the result, prior to the ordinary symptoms of deep seated inflammation, beyond the fact that the mammary glands were in the usual state of high functional activity, thus rendering them the most likely seats of election for any retrograde or morbid action to attack; favoured by a constitutional bias or state of lowered vitality induced by the presence of a specific poison, which we know to be resident in the system at the time. I remember well a case which struck me forcibly when in medical charge of Lisbon Royal Naval Hospital, during the winter of 1871, of a marine, admitted with symptoms of phthisis. His history told that he had been under treatment nine years previously at Haslar R. N. Hospital, Portsmouth, for secondary syphilis, contracted in China, where some of the most virulent forms of the disease occur. During the three or four weeks prior to his admission he had several attacks of hæmoptysis, which first originated from a slight cold, caught while on deck at sentry duty. He was a very powerfully built man, well nourished, and with no family history whatever of tuberculosis. His conduct papers showed, however, that he had been a very hard drinker from the time of his enlistment up to three years previous to his present illness, during which time he had been a total abstainer. He remained in hospital under treatment for about four weeks, when, finding he was getting stronger and better, due principally to change of air, he expressed a wish to be sent home to his friends. He went home, was surveyed and invalided as unfit for further service. After this he was, of course, lost sight of. The question here is, "Would so serious a pathological result as hæmoptysis have occurred from so slight a cause, had the system not been in some way under the influence of a specific blood poison?" *I think not.*

I remember another case of a fine young blue-jacket, who fell from aloft to the deck of a ship in Portsmouth Dockyard, sustaining a simple fracture of the left thigh. He was conveyed immediately to Haslar Hospital, where every possible care was was taken of him, notwithstanding which sloughing over the site of fracture set in and in a short time a large slough came away, converting the simple into a compound fracture of alarming magnitude. Large pieces of necrosed bone were cast off from time to time. At last, after two or three weeks, the wound began to granulate and everything was doing well, when, quite suddenly, he began to cough and spit blood, all the symptoms of phthisis following rapidly one upon the other until he died at the end of about four months illness. After death it was found that very imperfect union had taken place in the fracture.

On examining this man's papers, it was found that he had been under treatment for secondary syphilis, two and a half years previously at the Royal Naval Hospital, Plymouth.

There are many other cases of a similar nature I could call to memory, but I hope these will be sufficient for the present.

313 St. Antoine street,
Montreal, April 16.

Congenital malformation of male urethra. External Urethrotomy. By G. Stark, M.D., Milwaukee.

On the 7th of April, 1874, I delivered Mrs. S., after a somewhat tedious labour, of a healthy male child. On visiting her on the following day, I was told that the infant had not made water since its birth; and on making an examination, I ascertained that the prepuce was attached to the glans penis in such a way, that the raphe was to the left of the median line. A depression marked the spot at which the meatus urinarius should have been, but no open-

ing existed. Having satisfied myself that there was no opening, and having secured the consent of the parents to an operation, I went home to procure the necessary instruments, and returned to the house.

Thinking that the malformation was probably membranous, as is usually the case, I tried for some time to overcome the occlusion, but was not successful in striking the urethra. As I was then satisfied that the malformation was not membranous, I determined to perform the operation of external urethrotomy. The child being placed upon the nurse's knees, with the thighs fixed upon the abdomen, and the feet firmly held, I made the skin tight with the finger and thumb of my left hand, and made an incision about an inch long in the line of the raphe, midway between the scrotum and the head of the penis. By pinching the skin over the dorsum of the penis, I made the wound gape, and then cut down upon the urethra, keeping exactly in the middle line, and then having bent the penis on the dorsum, in order that the urethra might be made as tense as possible, I placed the point of the knife upon the urethra and cut into it. I then passed a large-sized sewing needle, with its head first, forward, and found it was arrested fully half an inch from the depression which took the place of the meatus urinarius. I then cut down on the head of the needle from the depression, passed the needle through, and having threaded it, I returned it, leaving the thread as a guide. I then sent for a No. 1 gum elastic bougie, and cutting a piece about three and a half inches long, I passed it into the urethra past the external cut, but not into the bladder. Just before I passed it the child made water. I directed the bougie to be left in five or six hours, and I brought the external wound together by a suture. From this time the child did well, and continued to pass water by the artificial passage. The bougie was kept in for a few hours each day, for three or four days, after which it was discontinued. The wound is now quite healed, and the child doing well.

Correspondence.

THE CANADA LANCET AND MEDICAL ETHICS.

To the Editor of the Canada Medical and Surgical Journal:

Sir,—Will you do me, and many other medical men, the favour to publish the following letter which the *Canada Lancet* declined to insert. It explains itself.

This *Globe* like conduct on the part of the *Lancet* is a striking commentary on the arrogant demand that it should be the universal organ of Ontario medical men.

Respectfully,

ETHICS.

Toronto, 9th June, 1874.

To the Editor of the Canada Lancet.

Sir,—I desire to express my strong dissent to the position you have assumed with regard to the question of medical writers in the public press in connection with legislation upon medical matters, In my former letter I spoke only of the general principle involved. You have raised another question—"Did the communication which appeared in the public press during the recent Parliamentary action have any influence one way or the other?" On this point I have no hesitation in declaring my belief that had it not been for these public letters Baxter's bill would at least have met with far greater opposition, not only from the members of the Legislature, but from the medical men throughout the Province.

With respect to the general principle, I must again express my astonishment at the doctrine that a medical man ought not to write, or if you prefer "figure," in the general press, even though that press is engaged in misrepresentation of his profession. Notwithstanding the

fact that the Legislative Assembly, elected by the public, has before it a measure affecting the welfare of the profession, and efforts are being earnestly made to defeat that measure, the medical man must not write in the daily press lest, forsooth, some censorious person will believe the writer is trying "to exalt his own personality." No matter that the *Globe*, the organ of the dominant political party, a widely circulated paper, and the principal source of information for a large number of the members of Parliament, commences a warfare against the Medical Bill and against the whole profession. It is true what is written in the *Globe* will be read by thousands who never see a medical journal; but never mind, they must not have an opportunity of reading both sides of the question lest the medical writer should thereby "exalt his own personality." I venture to use the strong words that this is a monstrous doctrine which does not obtain in relation to other professions, nor in the medical, in any part of the world.

But I wish to go further, and affirm my belief that when a question arises between the medical profession and the public, the secular press is the only channel in which a public discussion can be conducted. A medical journal is unsuited for that purpose, whether its circulation be large or limited, its arguments forcible or foolish. For a medical journal to arrogate to itself the exclusive right to promulgate the views of the profession upon matters pertaining to its public standing, and to "send marked copies to non-medical persons, allows one to intimate that it looks a little like an effort to exalt his own personality." Some would object to this outside circulation of medical literature and *anatomical plates* on other grounds.

It was unnecessary to send such information to the medical members of Parliament, for there were plenty of coals at Newcastle, while the other members were far more likely to be guided by what appeared in the morning papers which they invariably read, than by anything in a medical journal which might be merely glanced at.

If the foregoing be true, it follows that with respect to the recent legislation the public papers exerted mostly all the influence effected by the Fourth Estate. Had there not been a probability of accomplishing something the *Globe* would not have led the attack against the bill, and suppressed communications it found inconvenient to refute. And, moreover, it must be remembered that the hostility of the *Globe* had to be promptly met. The Committee—the Parliament—would hardly wait, perhaps a month, to see what some writer in *The Lancet* had to say in reply to statements circulated by the *Globe*.

In conclusion, I beg to say that I would prefer to have my communications returned than have them published in any way mutilated.

Yours, &c.,

ETHICS.

Toronto, May 18, 1874.

A case of Mania, with Atrophy of the Brain, etc. By J. Lockhart Clarke, M.D., F.R.S., etc., Physician to the Hospital for Diseases of the Nervous System.

Mrs. G., aged 76, was exceedingly emaciated, and had for many years suffered severely from asthma, for which a seton had been inserted, fifteen years back, in the left arm. The paroxysms of asthma gradually diminished in strength and frequency, and for the last two or three years had almost disappeared, so that the seton was removed. Some months after the removal of the seton, she fell down without losing consciousness, but was unable to get up, or to speak, during the space of half an hour. After this attack, she frequently complained of giddiness and loss of memory. Some months later, the giddiness increased; she became weak and thin, and was somewhat excited, but suffered no headache whatever. One morning she fell down immediately after getting out of bed, and was quite unable to raise herself, but she retained consciousness. She soon got better, and continued to improve for a few months, when she suddenly became

extremely excited, sitting up in bed and throwing about her arms or wringing her hands in apparent mental distress or despair, although, as I ascertained from her family, she had no actual grounds for any feelings of the kind. When I asked her what she wanted, she replied that she wished to die, that she had been wicked, and frequently she concluded by saying that she did not know what she wanted. On every other subject she was perfectly rational. She scarcely ever slept for long together without opium. This state of excitement lasted about two months, and was succeeded by greater weakness, by further loss of memory, and by giddiness. About six months later, another period of mental excitement commenced. During the whole day and night, except when she happened to fall asleep for a short time, she would try to get out of bed and wander about the house, or would sit up in bed throwing about her arms and turning up her eyes as if in despair, and crying frequently aloud—"Oh dear, what shall I do?" She was wholly unable, however, to give any definite or intelligible account of her mental suffering. Morphia and chloroform procured her some sleep at night. At the end of about three weeks, she became impressed with the notion that the house was on fire, and would frequently get out of bed and attempt to go downstairs for the purpose of escaping from the supposed danger; but, when prevented from so doing, she would sit on the side of her bed and repeat, almost uninterruptedly, from morning till night, the following statement: "It is as I tell you; it 's fire; it is as I say." On all other points she was quite rational, and knew every one that approached her. This state of excitement was subdued for a time by the inhalation of chloroform, which was used every night, but without inducing complete unconsciousness. About half an hour or an hour after the inhalation, she would fall soundly asleep until about five in the morning, when the same excitement returned, and she would then pass the day in repeating the same expressions. This state continued for about a month, during which time she frequently refused

to take food declaring that she was unable to swallow ; so that she was reduced to a state of great emaciation. Then she became quiet and comparatively calm, but still very uneasy and distressed in mind. For the first time, she complained of pain, all over her body. Her tongue was parched and dark brown ; her pulse rapid and extremely feeble. After remaining for about a week in this condition, she gradually and quietly sank.

Post Mortem Examination Forty Hours after Death.—April 15th, Weather not warm. Along each side of the falx cerebri, the membranes were closely adherent to each other, and firmly attached to the side of the falx and to the skull a little beyond it. The entire brain was very small and particularly globular in shape. The veins on its surface were full of dark-coloured blood, and several large clots were found in the longitudinal sinus. Beneath the arachnoid, a quantity of fluid was found in the sulci between the convolutions, which in some places were extremely atrophied. At the vertex, over a somewhat circular area of about an inch and a half in diameter, on each side of the longitudinal fissure, the convolutions were so atrophied, that the spaces between them were in some instances three quarters of an inch in breadth. It was over this space that the membranes were adherent to each other, as well as to the falx and skull. The quantity of fluid which ran out from beneath the arachnoid was about two ounces and a half. The substance of the hemispheres was not at all soft. When sliced, the grey portion presented its normal colour and consistence, and was not unusually vascular. The lateral ventricle contained a small quantity of fluid. The right optic thalamus was decidedly smaller than the left, and somewhat soft. The corpus striatum on the left side was decidedly small, soft, and altered in shape, being bent, as it were upon itself. The pons and medulla oblongata were very small.—*British Medical Journal.*

The relation between Arterial Tension and Albuminuria. By F. A. Mahomed, Esq., Resident Medical Officer to the London Fever Hospital.

I do not desire to enter into a controversy with Dr. Johnson on the much vexed question of "capillary power"; for, although he naturally adheres to his theory of the stop-cock action of the arterioles, still I am not singular in believing in the existence of such a power; and Dr. Johnson must surely allow that the transudation of hæmoglobine, which is associated with high arterial tension, but absent in venous congestion, together with other facts brought forward in my paper and previous article, are strong proofs of its presence. They at least prove the occurrence of high pressure in the arterial capillaries; and he does not attempt to explain them otherwise, or to contradict them.

Dr Johnson, however, not only mistakes my theory of the pathology of Bright's disease, but he lays down a rule and a challenge, to which I gladly respond. He says that "a true theory must be consistent with all ascertained facts"; and he then instances the high arterial pressure existing in cases of contracted kidney, and the small amount of albumen discoverable in the urine, as a condition that cannot be explained by my theory. Not only have I found my views to be "consistent with all ascertained facts," but I have solved by their assistance many problems which, when regarded from Dr. Johnson's point of view, are difficult of comprehension; such for instance, as intermittent albuminuria, rupture of capillaries and appearance of blood in the urine, the immediate relief afforded by purgatives, the production of dropsy, and the transudation of hæmoglobine.

With regard to the slight degree of albuminuria, accompanying contracted kidney, it may be explained as follows. The changes which precede and accompany cirrhosis of the kidney are peculiarly insidious in their commencement, gradual in their development, and prolonged in their existence. There is, therefore, at first a slight but gradually increasing want of relation between blood and tissue; this

produces a correspondingly slight, but also gradually increasing, condition of high tension in the arterial system. This increase of tension is too slight and too gradual to produce an albuminuria ; but it nevertheless, if allowed to continue and to increase, produces a thickening of the arterial walls, a hypertrophy of their muscular coats, and a hypertrophy of the heart. I believe it is this condition (when accompanied by a particular excretion by the skin or bowels, affording relief to the kidneys) that give rise to those changes described by Sir William Gull and Dr. Sutton as "arterio-capillary fibrosis," and stated by them occasionally to exist without marked change in the structure of the kidney. When at last this very gradual increase of pressure, which may require years for its development, reaches that degree which, in an acute case with healthy vessels, would give rise to a copious transudation of albumen, the walls of the capillaries and arterioles are so thickened that it is far more difficult to force through the albumen. For the same reason, the hæmoglobine is absent from the urine of these patients, in whom the high arterial tension is invariably well marked, but whose urine may be free from albumen. In such cases, slight constipation or chill (by arrested excretion) will produce that temporary existence or increase of albuminuria which is so characteristic of cirrhosis ; or a more severe constipation or chill will immediately give rise to the symptoms of the acute form of Bright's disease.

Again, Dr. Johnson states that he has been unable to discover any hypertrophy in the muscular walls of the arterioles of the lung, produced by the existence of high pressure from the passive engorgement of these organs ; but, on the other hand, I have constantly seen thickening and endarteritis of the pulmonary vessels, demonstrated by Dr. Moxon as the result of "strain" from high pressure in these vessels, due to this cause.

Dr. Johnson considers a similar "unity of action" to exist between the heart and muscular arterioles, as between the detrusor urinæ and the sphincter vesicæ, or between the

muscular walls of the rectum and the sphincter ani. I, however, am unable to perceive the resemblance; for while, in the former case, according to Dr. Johnson, the heart and arteries are simultaneously contracting and acting in opposition, in the two latter instances, while the expulsors contract, the sphincters are relaxed, and *vice versa.*

Finally, Dr. Johnson has entirely misapprehended my theory of the production of the pathological changes; he has omitted the most important step in the process. Given the predisposing condition of blood-poison and high tension, from capillary obstruction, I do not believe that any acute kidney-change would be produced without the occurrence of another most important condition—namely, arrested action of one of the excretory organs, either bowels or skin. This throws increased work on (and produces, therefore, congestion of) the kidney, and subsequent cell-proliferation —a somewhat different sequence of events from that described by Dr. Johnson as entailed by my theory.—*British Medical Journal.*

Fissure of the Anus in a child one year and a half old. By J. Hyde Houghton, Surgeon to the Guest Hospital, Dudley.

On February 16th, 1874, I saw Nellie D., now one year and three-quarters old, a delicate small child, who had been dry-nursed since she was one month old. She had been inclined to be costive since infancy, but in May last the costiveness became aggravated, at which time I was consulted. The various ordinary means of regulating the bowels were had recourse to—aperients, diet, and enemata —but up to November 1873 no essential relief to the symptoms was afforded, and for some time past she never had a motion without aperients or enemata. She frequently went two or three days without relief to the bowels, and each act of defæcation was attended by violent pain, screaming, and crying. She would do all in her power to prevent

the action of the bowels, writhing about and screwing her knees together. She was in great pain for an hour after each motion, and the discharges were costive and sometimes streaked with blood and mucus. In November, I attempted to examine the anus, but, from her restlessness, it was impossible to get a fair view of the part, though I fancied I could see a small crack on the verge. On November 27th, I put her under chloroform and discovered a small fissure, and through this I at once made a superficial incision. The relief was immediate and permanent. From the day of the operation, all the symptoms entirely vanished, and her bowels have acted regularly and easily ever since. It need hardly be added that her health has greatly improved since the operation. I put this case on record, both on account of its rarity, and, as I hope, of its importance. I am not aware of any similar recorded case, and no author that I know of alludes to fissure in children. Bryant describes it as a disease of adult life, and Curling as a disease of middle life; whilst Erichsen, Hilton, and Quain make no allusion to it in childhood. I am induced to hope that the case will prove important in reference to the treatment of constipation in children. Every one who has seen much of the diseases of children, must be aware of the difficulty which exists in the treatment of constipation, and have been baffled in dealing with it. It is not my intention to enter upon that subject; the object of this short communication being simply to draw attention to the existence of one cause hitherto overlooked, in the hope that relief may be afforded to, at least, a few of these troublesome and painful cases.

P.S.—I met my little patient with its mother a few days ago, and was informed that there had not been any difficulty with the bowels since the operation had been performed.—*British Medical Journal.*

Remarkable Case of Heart Disease: Septum Ovale open, and Inferior Vena Cava opening into Left Auricle; no Cyanosis. By ARTHUR E. T. LONGHURST, M.D., 4th Batt., 60th Rifles.

The subject of this very singular case was a man with a well built frame, good muscular development, and 5 ft. 4 in. in height. At the age of nineteen he enlisted into the 60th Rifles, having been for seven years previously in the Royal Navy, and was in possession of the Baltic medal for services on Board H.M., frigate *Nile* during the Crimean war. He embarked with his battalion for Canada in June, 1861; and without being habitually intemperate, he kept up his habits of sea life, taking stimulants pretty freely. His father died young, cause of death unknown; but he said his family were healthy, and his mother, who was with him constantly for some time before his death, was certainly a very healthy-looking old woman. He enjoyed good health in Canada being always considered a strong muscular little man, ready for anything, and was for three summers employed as one of a boats's crew on the river St. Lawrence and Lake Ontario in the service of the General Officer commanding. He had a mild attack of syphilis in 1868, not treated by mercury, and not followed by secondaries; and returned to England with his battalion in the summer of 1869, in good health, going through field days at Aldershot and the autumn manœuvres for three seasons without inconvenience. Was tapped for hydrocele in 1872, and in December of that year was in hospital for gout in the right foot, being at times dyspeptic, but never had acute rheumatism.

He came to hospital on October 16th, 1873, complaining of extreme weakness amounting at times to syncope. He looked very ill, was deadly pale, respiration rapid and laboured, heart's action extremely quick and extended, with regurgitation into the veins at the base of the neck; legs œdematous. Auscultation revealed pulmonic congestion, especially of the left side, and extensive valvular disease of the heart, the exact nature of which could not be at once determined

owing to the very rapid action—144 a minute, with weak and irregular rhythm. Having for some months been employed as clerk in the battalion orderly room, he had not been called upon to undergo much exertion and fatigue, but said that for the last few months he had been subject occasionally to dyspnœa, and that since arrival at Portland, in June, the dyspnœa had increased with increasing debility, making it difficult for him to ascend the hill to the citadel, a height of nearly 500 ft. from the sea level. He was ordered a purgative, counter-irritation to back of the left lung, diaphoretic and digitalis. The symptoms were relieved; and on the 18th, two days later, a systolic bruit was heard just below the nipple, carried downwards, and very extensive cardiac hypertrophy was diagnosed, dulness extending towards the xiphoid cartilage and epigastrium, with giddiness and a confused, uncomfortable feeling in the head. Urine acid, depositing lithates, and slightly albuminous.

Oct. 24th. Pulse irregular, three rapid beats and then a pause; respiration 24, easy; no cough nor expectoration, but some gouty pain in the knee.

25th.—Had a sudden attack of extreme dyspnœa, passing into a state resembling the clonic stage of an epileptic fit, but ending in coldness and exhaustion; and was considered due to pulmonary embolism. Ordered brandy and digitalis, under which the symptoms subsided to some extent; and on the 26th the pulse intermitted less frequently.

28th.—Sounds of the heart distinct and without bruit; impulse forcible, and widely extended upwards and to the right.

A fortnight later the pulse was down to 100; the sounds of the heart were clear and without bruit, but intermitting, three rapid beats and then a pause in length of two beats; the pulse at the wrist not corresponding to the heart in number of beats.

At the end of a month the rhythm was still irregular, pulse 132, respiration 32, the dropsy increasing. Digitalis continued. By Dec. 6th the frequency of the pulse fell to

74, but the intermission continued about every third beat. The digitalis was omitted, and the pulse again rose from 100 to 144.

On Dec. 15th the sounds of the heart were rather muffled and running into each other, but there was no bruit. On the 20th the sounds were quite regular, but there was a roughness with the diastole, and the pulse was 140.

From this date the general symptoms advanced rapidly, especially the dropsy, necessitating paracentesis abdominis on Jan. 4th, 1874, when two gallons of clear yellow serum were drawn off, with much temporary relief: but the abdomen soon refilled, with an accession of all the symptoms. No marked change, however, occurred in the heart sounds, which continued regular, quick, and feeble, without bruit. The operation of paracentesis was three times repeated with relief, but the patient grew weaker, and sank on Feb. 9th, four months from date of admission, his age being thirty-six.

Autopsy, twelve hours after death.—Body of a marked icteric hue, not at all blue or venous in appearance; upper half wasted, lower half œdematous. Abdomen much and uniformly distended, but without enlarged veins.—Thorax: Muscular coverings wasted; cartilages of ribs ossified. Right lung forced upwards, much congested, and intimately attached to the side by old adhesions. Left lung in a similar condition, but atrophied, and occupying only the mere apex of the thoracic cavity; the remainder of this space being occupied by an immensely hypertrophied heart, enlarged from above downwards, the shape of a distended stomach with a slight constriction across the left third, weighing, with adherent pericardium, attached vessels, and blood-clots, 2 lb. 9½oz., and clear of these 2lb. 1½oz. The right auricle, being laid open, was found extremely dilated and full of dark jelly-like clots. The superior vena cava opened into the appendix, and was also dilated; the foramen ovale was only partially closed, there being three crescentic openings, the size of a pea, in the lower border of the sep-

tum, each having a raised and well-defined margin, giving to the septum at this point a cribriform appearance. The opening of the inferior vena cava was absent; the coronary vein was extremely enlarged; the Eustachian and Thebesian valves were well marked, and the diameter of the auriculo-ventricular opening was 1·67 in.; the lappets of the valves were thickened, puckered, and imperfect. The left auricle was dilated, full of jelly-like clots, and having in addition to its ordinary opening, that of the inferior vena cava, and at a point posteriorly and inferiorly and on the same plane, but posterior to the mitral orifice; the direction of this opening being clearly towards the cribriform septum ovale whilst the pulmonary veins opened into the auricle superiorly, and their direction was towards the mitral orifice, the diameter of which was 1·45 in., and its valves were normal. The right ventricle was full of the same jelly-like clots, but did not offer any point for special notice; diameter of pulmonary artery, 1·18 in. The left ventricle formed the greater part of the entire weight of the heart; its apex being prolonged through a wide mouth into a large sacculated aneurism, the size of an ordinary orange, which was filled with layers of laminated fibrine; the external ones honeycombed and dense, the interior ones lying next the cavity of the ventricle being softer masses and without determinate form and character. The ventricular walls were slightly thickened, but prolonged for a short distance into the aneurismal walls, the limiting membrane of the main dilatation being composed of the adherent and thickened pericardium, on the outer edge of which was a bony plate or spicula, the results of a tissue degeneration. The aorta was thin and flabby; no atheroma observed. Diameter of aortic opening, 1·03 in. Valves healthy. No fibrinous clots in the heart or great vessels.—Abdomen: Liver rounded and contracted on its surface; capsule densely thickened; weight 2 lb. 7¾ oz.; tissue presenting an excellent example of Cirrhosis Kidneys small and contracted; two cysts in the cortical substance of the

left, lined by a distinct membrane, and containing a serous looking fluid, with a depressed, yellow, cheesy-looking spot, found on section to extend inwards to the base of the pyramid, its exact nature being uncertain, but like the remains of the wall of a cyst such as that noted on the surface. Some serum and flaky lymph in the cavity of the peritoneum. Intestines distended and inflamed, and some of the intestinal convolutions glued together by recent lymph.

Remarks.—A consideration of the following points in this very remarkable and apparently unique case will, I think, be full of interest, and perhaps enable us the better to understand it.

1. The changes in the anatomy of the heart: (*a*) congenital; (*b*) structural, as the result of disease, or of both causes combined.
2. The changes in the adult circulation.
3. Perfect health and vigour up to thirty-five years of age.
4. The absence of cyanosis.
5. Absence of physical signs of congenital change.
6. Their comparative significance and variableness during the last few months of life, whilst under observation.
7. The determining cause of the aneurism.

1. The congenital changes, then, were as follows:—(1) Superior vena cava opening into the appendix of the right auricle, which, together with the auricle itself, was extremely dilated. (2) Absence of the inferior vena cava from the right auricle. (3) A cribriform condition of the septum ovale. (4) The extremely large size of the coronary vein. (5) The inferior vena cava opening into the left auricle, in the position and manner detailed.

The disease changes were:—(I) Adherent pericardium. (2) Dilatation of cavities of the heart. (3) Thickened and puckered state of right auriculo-ventricular valve. (4) Thickening of left ventricular walls, which were prolonged for a short distance into (5) a large aneurism of the ventricle. (6) Increase in weight of heart, to 2 lb. 1½ oz.

2. The changes from the ordinary course of the adult cir-

culation were as follows:—The blood of the lower half of the body brought by the inferior vena cava, instead of passing into the right auricle direct, was carried first into the left, thence probably through the cribriform septum ovale into the right auricle, establishing thus a double current in the left auricle, composed of (*a*) venous blood, brought by the inferior cava for passage through the cribriform septum ovale into the right auricle, there to mingle with the stream from the superior cava passing into the right ventricle, thence into the lungs; and (*b*) arterial blood brought from the lungs by the pulmonary veins for passage into the left ventricle, thence to the aorta.

A consideration, then, of the above two conditions—viz., the changes in the anatomy of the heart, and the changes in the course of the circulation—may help us; but for a full and clear explanation of the case we must revert to the conditions of fœtal life.

It is, I think, evident that a communication between the two auricles through the septum ovale was a necessary consequence of the inferior cava opening into the left, otherwise the two currents of venous and arterial blood must have mixed freely. Again, the points of openings of the vessels and their directions, the alteration in the size of the chambers, &c., would materially influence the currents—e. g., the site of opening of the inferior cava and its direction towards the cribriform septum, and the openings of the pulmonary veins in a direction towards the mitral orifice, might enable the blood currents in the left auricle to pass each other, without very greatly commingling; there must however, have been some slight admixture of venous and arterial blood in the left auricle, although apparently very small, from the absence of cyanosis; for granting that the blood currents from the inferior cava passed into the right auricle through the septum ovale, yet, on the contraction of the right auricle, some venous blood must have regurgitated through the opening into the left auricle, although the major part of it may have gone into the ventricle in the ordinary course.

I have said, however, that we must look to the conditions of fœtal life for a complete understanding of the case, and those conditions will, I think, render it pretty clear ; for we know that during the very early development of the fœtal heart there is but one auricle, which subsequently becomes divided by the development of a septum ; and that though for a time the inferior vena cava does open direct into the left auricle, yet that with increasing growth and development the septum rises up on the left side of the entrance of the vein, and thus causes it, together with the superior vena cava,, to open into the right auricle. We see therefore, that the peculiarity in the present instance is really a remnant of very early fœtal life, yet that during that stage of fœtal development the course of the blood was from the right to left auricle ; whilst in the case under consideration, in adult life, the course of the stream was reversed. That such a condition should have continued into adult life, and that the subject should have enjoyed perfect health and strength, is not the less remarkable and more than that the course of the circulation, thus altered should have flowed so evenly.

With regard to the conditions Nos. 3 and 4 noted, and referring to the health and constitutional vigour enjoyed by the subject, and the absence of cyanosis, it is, I believe generally considered that the imperfect development which results in a direct communication between the two sides of the heart gives rise either to palpitation, dyspnœa, and an enfeebled existence, or to very early death; yet the subject in the present case was unusually strong and muscular, as stated, being known amongst his comrades as the little lion of the battalion, of free habit of life, and always ready for anything; and that he should have exhibited no sign of cyanosis is equally remarkable, unless the fact of the inferior cava opening into the left auricle in a line with the apertures in the septum, and so directing the current of the blood, may be sufficient to explain its absence ; whilst we cannot here fail to be struck with the infinite power, wisdom,

and skill by which Nature adapts herself to circumstances ; or, in other words—if, indeed, we may venture to consider her as capable of error—how easily, having got into a difficulty, she rights herself; for surely, as above suggested, having put the inferior cava into the left auricle, she then left the septum ovale open, intending thereby, or in that way, to complete her form of creation, and to fit the creature for the work of life.

A consideraiion of points 5 and 6, as to absence of physical signs of patent septum ovale, is also surprising, a loud superficial murmur being usually heard over the site of the communication : but in the various examinations through which this subject has passed from time to time during a period of fifteen years' service nothing abnormal was ever detected, whilst its absence seems to prove that the passage of the blood through the cribriform septum into the right auricle was tolerably smooth and even, and the variableness and comparative insignificance of the physical signs of disease whilst under observation during the last few months of life was singular enough.

The physical signs on admission into hospital indicated a diseased condition of the tricuspid valves allowing of regurgitation, whilst percussion declared the hypertrophy, and both these conditions were realized in the post-mortem examination. As disease progressed the pulse became irregular, that at the wrist not corresponding to the beats of the heart either in force or frequency, whilst the tricuspid bruit disappeared entirely ; and the fits of dyspnœa, with symptoms apparently due to pulmonary embolism at times observed. seemed fairly attributable to the altered condition of the heart and its valves as the result of disease quite irrespective of the congenital changes.

Lastly, as regards No. 7, the determining cause of the aneurism. Was it a strain in rowing, or some other act of over-exertion ; tissue degeneration in the muscular structure of the ventricle in a man of free habit of life, of a gouty diathesis, having a bony plate or spicula on the limiting

wall of the aneurism; or could it be at all of a congenital nature, originating partly in deficiency, more or less, of the muscular layers at the apex, or to changes in the force or direction of the blood-currents, consequent on the patent foramen ovale and other congenital irregularities?

The microscopal examination ot the structure of the left ventricle walls by Dr. Welch, Assistant Professor of Pathology at Netley, and who, in conjunction with my valued friend and brother medical officer in the battalion, Dr. Harman, has so kindly aided my attempts towards a clear report of this very interesting and unusual case, failed to detect syphilitic or other precise tissue degeneration. Hence Dr. Welch is disposed to attribute the aneurism to some congenital deficiency in the muscular layers at the apex of the ventricle, where they are always the thinnest; but I incline to the belief that, with any congenital defect there, adult life would not have been reached, or if reached, the subject of such defect would not have been what he was in the present instance.

Consequently, though the microscope did fail to detect tissue degeneration, as there was an ossified state of the ribs, a bony plate on the pericardium, a diseased tricuspid valve, cirrhosis of liver, and contracted and diseased kidneys, showing that tissue change had for some time been going on in the ribs and other viscera of a man who had been addicted to the free use of spirits for years—itself always so pregnant a source of tissue degeneration,—both Dr. Harman and myself are disposed to attribute the aneurism, to a strain in rowing, or some other violent exertion, by which a weak point in the ventricle was established, and which eventually yielded to subsequent pressure and tissue degeneration, and that at most the congenital condition of the ventricle and the anatomical changes in the heart were only secondary causes in operation.—*Lancet.*

Verne Citadel, Portland.

Poisoning from Corrosive Sublimate Generated in the Mouth from Amalgam Plugs in the Teeth.

Having been invited by an eminent gentleman of the medieal profession to attend a convention of the State Medical Society to submit to its consideration a matter of vital importance to the human family, and being unable to comply with the invitation, I have written this article to lay the matter before the medical profession and ask its co-operation.

The matter which I wished to bring to the notice of the profession is the poisoning of thousands of people all over the world, from corrosive sublimate generated in the mouth from amalgam plugs in the teeth. Neither Asiatic cholera, nor smallpox, nor any malarious disease, is doing half the mischief in the world that is being done by this poisoning. Every medical man of any considerable practice has undoubtedly had numerous cases of it, but never knew what it was. The symptoms are so numerous and varied in different cases that it would be impossible to give them all in this short article, but I will say that a person poisoned in this way is liable to be treated for dyspepsia, neuralgia, paralysis, consumption, and numerous throat diseases. The patient gradually wastes away as if going into a decline, and no medicine will afford any relief. In many cases the difficulty steals on so gently as not to excite the least alarm, and continues very gradually for a number of years till the patient becomes a total wreck; while in others the attack comes on violently, and the friends and the attending physician think the patient is dying; but he will again rally, and again be prostrated.

There is such a resemblance in the symptoms to nearly all the diseases to which human flesh is heir that the physician is led to treat the patient for some disease which seems to be a very clear case, but his patient gets worse. In more than twenty cases that I have had, nearly all had been pronounced by some physician as having consumption. In nearly all the cases there are at times a very bad

cough, eyes sunken, and haggard expression and deep blue or dark color under the eyes, invariably a metallic taste in the mouth, water flowing from the mouth in the night while asleep so as to wet the pillow, and in most cases extreme prostration.

I have not time now to detail the manner in which the corrosive sublimate is formed in the mouth, further than to say that the quicksilver in the plugs is driven off by the heat of the mouth in very minute particles, and, combining with the chlorine in the fluids of the mouth, or any saline substance, such as our food, passes into the stomach, and produces slow poisoning. If the State Medical Society will appoint a committee to visit this place, I will show them several cases that will place the matter beyond controversy.

There are some twelve thousand dentists in the United States doing a wholesale business at this poisoning, and I ask the co-operation of the State Medical Society, as guardians of the public health, to assist in getting an act of Congress passed making it a penitentiary offence to place any poisonous substance in teeth that will injure the people.—*F. Payne, D. D. S. in Chicago Medical Journal.*

Practical Notes on Cutaneous Subjects. By TILBURY FOX, M.D., Lond., F.R.C.P., Physician to the Department for Skin Diseases in University College Hospital.

SCABIES IN PRIVATE PRACTICE.

It is important to remark that scabies often differs very much in aspect, according as it occurs in hospital or in private practice. Amongst the poor, and especially the uncleanly, the burrowings of the acari in the skin are attended with the formation of papules, vesicles, pustules, wheals, &c., in abundance. But amongst the well-to-do, and particularly those who observe great cleanliness, the ordinary results of the irritation produced by the acari may be almost, if not entirely absent. So that if a student were to be guided by the ordinary descriptions given in books of

scabies, he would certainly not be able to diagnose the scabies present. The disease would not answer in description to papular, pustular, or vesicular scabies, and yet true scabies might be present. I have seen several cases lately in which patients complained of itching intensified at night, in different parts of the body, and in whose skin nothing could be detected but a few cuniculi about the hands, or the penis, and an apology for a vesicle here and there. I have seen a multitude of acarian furrows about the hands and other parts in a case of scabies, and nothing else. In other cases I have observed just a few very fine, delicate, pale, flesh-coloured papules, the result of irritation set up by acari present in the skin, and nothing more; and those, which were lichenous papules, were difficult to make out. In all cases in which a patient complains of itching aggravated at night, even though there be none of the ordinary evidences of scabies present, yet a diligent and active search for cuniculi should be made about the hands and penis. I have known patients treated with powerful internal remedies for "prurigo," lichen, and the like for weeks, whilst scabies, which existed, was wholly unsuspected because there were no papules and pustules present. Papules, pustules, and vesicles are indeed accidental accompaniments of scabies, which should be looked upon as consisting essentially of the acari in their furrows (cuniculi)—i.e., the real scabies, and the phenomena of irritation (papules, pustules, &c.) superadded, which, under certain circumstances, may be entirely absent.

SCABIES OF THE PENIS.

Two or three cases of scabies limited to the penis have recently come under my notice. In all of the cases careful search detected cuniculi. In two, suppurating buboes were produced by the irritation, and the disease was thought to be syphilitic. The diagnosis was rendered easy by the absence of any decided induration about the scabies spots, their vesico-pustular origin, pruritus intensified at night, the presence of cuniculi, and the absence of any concomitant evidence of syphilis.—*Lancet.*

CANADA

Medical and Surgical Journal.

MONTREAL, JULY, 1874.

CANADIAN MEDICAL ASSOCIATION.

At the meeting of this Association held at Halifax, Nova Scotia in September last, it was unanimously determined that the annual gathering this year should take place at Niagara Falls, on Wednesday 5th August, 1874. We understand that recently Dr. Canniff of Toronto, chairman of the Committee of Reception, with Dr. Mullen of Hamilton, proceeded to the Falls and made arrangments with the well known proprietors of the Clifton House, Messrs. George M. Colburn & John H. McOmber, who, with accustomed liberality have manifested their interest in the success of the meeting by offering to entertain the members of the Association, and their wives and daughters at reduced rates. This generosity is the more noteworthy when it is considered that the month of August is generally selected by Tourists to visit the renowned scenery of Niagara Falls and when the Hotels are generally well filled with guests. Every exertion will be put forth by the Committee to entertain their guests and to acquaint the members of the Association of the reception they may expect.

We hope there will be a large gathering as subjects of importance to the profession throughout the Dominion, will be submitted to the meeting, and which, if calmly and judiciously entered upon will do much to allay the feeling of irritation which generally prevails, especially in Ontario, in view of recent legislation. The Medical Association should be more than merely a social gathering,

although we should regret to see the apple of discord thrown in amongst its members. Sooner than that should occur it would be more preferable to drop medical politics altogether.

These meetings of the various sections of our country generally bring together representative men, and afford an excellent opportunity for united action as well as a free expression of the wants and requirements of each division of the Dominion. We hope to see a full meeting and an earnest desire on the part of all who attend to work harmoniously, as it will be for the benefit of the profession as a body. Medical legislation has hitherto been attended with doubtful results. In Ontario the profession have certainly a Medical Act which is in many respects highly beneficial; we should gladly see an attempt made to legislate for the Dominion, so that the anomaly should exist no longer of Registered Practitioners in one section of the country being denied the right of practising their art in any other section, without being forced to submit to further tests of proficiency by examination, and of paying high fees for the privilege.

There should exist among us as a professsion an honorable rivalry to advance the tone and character of our calling; rivalry in elevating the quality and method of teaching in our schools. A high standard of preliminary education is exacted both in Ontario and Quebec, and is beginning already to show fruit in the sending forth of a better class of general practitioners. We may hope for the dawn of that period when our profession will assume that position in the scientific world which it lacks at the present day. It may be argued, and with some truth that the Canadian Medical Association was established purely and only for the purpose of bringing together members of the Profession from all parts of the Dominion purposely to discuss subjects connected with the scientific advancement of our profession, and that medical politics should not be broached. This is perhaps in the main true, but in the

present crude state of matters, it is greatly to be desired that a uniform system of examination should be secured. The question of a central examining board is one which has long engaged the attention of earnest thinkers, and it could, we believe, be carried, or at least an expression of opinion emanating from such a body as the Canadian Medical Association in favor of such a board, would go far to aid in its ultimately becoming the law of the land.

We hope and trust the subject will not be forgotten, or allowed to drop—and above all if it is discussed, we trust it will be taken up in all earnestness of purpose, but with temperance, prudence and brotherly love.

TRIENNIAL MEETING OF THE COLLEGE OF PHYSICIANS AND SURGEONS, L.C.

The Triennial Meeting of the "College of Physicians and Surgeons of Lower Canada," was held at the town of Sherbrooke, P.Q., on Wednesday, the 8th July inst.

The following gentlemen were present:—Drs. Scott, Howard, Peltier, Rottot, Robillard, Millette, F. W. Campbell, Hingston, Brigham, Gibson, Duchesneau, Russell, Rinfret, Tessier, Belleau, Marmette, Tetu, Pelletier, de St. Georges, Landry, Gilbert, Hamilton, Worthington and G. E. Fenwick. The attendance was small when it is considered that the profession is represented by upwards of 150 members of the College—each of whom are, or should be, interested in the success of the institution, and in the election of reliable men to carry on the important affairs of the Corporation.

Precisely at 10 o'clock A.M., the President, Dr. W. E. Scott, took the chair, and called the meeting to order. The Secretary for the District of Montreal, Dr. Rottot, read the minutes of the last Triennial meeting, which were duly approved.

The President then gave a synopsis of the proceedings of the College during the past three years. After which

the following gentlemen being licentiates of over four years, were proposed and seconded in due form, and the ballot having passed, were declared elected members of the College, viz.: Drs. John Reddy, W. Gardner, E. H. Trenholme, R. A. Kennedy, M. Millette, P. de St. Georges, F. X. Perrault, and D. T. Scholfield.

Two of the above named gentlemen being present, took their seats as members of the College.

Twenty-seven proxies were handed in, making the total number of votes represented, fifty in all. The following gentlemen were appointed a committee to examine the proxies, viz.: Drs. Marmette, Rinfret, Gibson, and the Secretary.

On motion, N. Mercer, Esq., of Montreal, representing the Pharmaceutical Association of the Province of Quebec, was invited to take a seat at this board.

Mr. Mercer submitted to the College the draft of a Bill to amend "the Act of Incorporation of the Pharmaceutical Association of the Province of Quebec, and to regulate the sale of Poisons," with a view of obtaining the concurrence of this College to the terms of the Bill.

A BILL

To Amend the Act of Incorporation of the PHARMACEUTICAL ASSOCIATION OF THE PROVINCE OF QUEBEC, *and to Regulate the Sale of Poisons.*

WHEREAS it is expedient for the safety of the public that all persons engaged in the sale of Drugs and Poisons, and the dispensing of Medicines, should possess a competent, practical knowledge of Chemistry, and other branches of useful knowledge; and whereas certain persons desirous of advancing Chemistry and Pharmacy, and of promoting a uniform system of educating those who should practice the same, formed themselves into a Society called the "Pharmaceutical Association of the Province of Quebec," which said Society was in the year of our Lord one thousand eight hundred and seventy incorporated by Her Majesty, by and with the advice of the Legislature of Quebec, whereby it was provided that the said Corporation should consist of persons to be called "Members," such persons being Chemists and Druggists who were and had been established in business on their own account prior to the passing of the Act of Incorporation, or who should have been examined in such manner and on such subjects as the Council of the said Corporation should deem proper, or should have been certified to be duly qualified for admission as Members; and also another class of persons called "Associates," who were clerks or apprentices of Chemists and Drug-

gists, who at the date of the passing of the Act of Incorporation, were Associates of the Montreal Chemists' Association, all Associates admitted after the passing of the Act, having first to be duly examined as to their skill and knowledge in such manner as the Council of the said Corporation should deem proper; and whereas, for the purposes of extending the benefits which have already resulted from the said Charter of Incorporation, it is desirable that additional powers be granted for regulating the qualifications of persons who may carry on the business of Pharmaceutical Chemists, or Chemists and Druggists, and for the regulation of the sale of Poisons, and for other purposes connected with Pharmacy, be it enacted by Her Majesty, by and with the advice and consent of the Legislature of Quebec :—

1. That the said Charter of Incorporation granted to the said Associationt and known as "The Pharmaceutical Association Act of 1870," save and except such part or parts thereof as are hereby altered, varied or repealed, shall be, and the same are hereby confirmed and declared to be, in full force and virtue, and shall be as good and effectual, to all intents and purposes, as if this Act had not been passed.

2. The Council of the said Pharmaceutical Association shall be, and the same are hereby authorized and empowered to alter and amend the By-laws of the said Association made and established under or in pursuance of the said Charter of Incorporation, and to make or establish such new or additional By-laws as they shall deem proper or necessary for the purposes contemplated by the said Charter or by this Act.

3. That the name of the Association shall be changed from that of the "Pharmaceutical Association of the Province of Quebec," to that of the "College of Pharmacy of the Province of Quebec."

4. That all persons in business on their own account as Dispensing Chemists or Apothecaries prior to the passing of this Act, or who have acted as Superintendents of a Chemist and Druggist's business for not less than 7 years, and being of full age, shall, upon producing evidence of the facts, be entitled to be placed upon the Register, and to be certified as "Licentiates in Pharmacy."

5. That all clerks who have been more than three years in the trade shall, after producing satisfactory evidence of the fact, and after undergoing a modified examination, be entitled to be placed on the Register, as "Certified Clerks."

6. That all clerks and apprentices who have not been three years in the trade shall go through the required curriculum of study and pass the examinations before they can be registered as "Certified Clerks."

7. That every youth, before he is taken as apprentice by a Licentiate of Pharmacy, shall produce satisfactory evidence of a good moral character, and pass a preliminary examination in the English, French and Latin languages, and Arithmetic, after which he shall be registered as a "Certified Apprentice."

8. That in addition to the preliminary examination for apprentices, there shall be two other examinations. The first to be called the "Minor Examination," shall be passed by all Certified Apprentices before they can take the position and become qualified as "Certified Clerks." The candidate shall be

examined in the Translation and Dispensing of Prescriptions, Pharmacy, Chemistry, especially the Chemistry of Poisons, Posology, and Materia Medica. After passing this examination the candidate shall be registered as a "Certified Clerk."

9. The second examination shall be called the "Major Examination," and shall embrace the same subjects as the "Minor Examination," but a knowledg- of Botany and a more extended knowledge of Maderia Medica and Pharmaceutical Chemistry will be required. The candidate must also produce evidence that he has served at least four years in a drug store and attended two courses of lectures on Materia Medica, two courses on Chemistry, and one course on Botany. After passing this examination, and producing the required Certificates, the candidate shall be registered as a "Licentiate of Pharmacy."

10. All the examinations referred to in the previous clauses—viz., the Preliminary Examination, the Minor Examination, and the Major Examination—shall take place and be regulated by such rules and regulations as may be in force at the time such examinations are held, and all candidates for any of the said examinations shall pay such fees as may be imposed by any such rules or by-laws.

11. The Council of the said Corporation for the time being, by themselves or such other competent persons as they should think fit to appoint, shall examine and decide upon the admission of Licentiates, certified Clerks and Certified Apprentices of the said Corporation, and grant such certificates or diplomas as they shall think proper to the persons whom they shall deem qualified to be such Licentiates, Certified Clerks, or Certified Apprentices respectively.

12. The Board of Examiners for the time being shall have power to dispense with the examinations herein provided for,and to accept in lieu thereof, authenticated certificates of examination in Pharmacy by duly appointed Medical or Pharmaceutical Boards, accompanied by certificates of good moral character, and subject to such other regulations as may be imposed by by-law.

13. The Registrar shall from time to time make out and maintain Registers of: 1st, Licentiates in Pharmacy; 2nd, Certified Clerks; and, 3rd, Certified Apprentices respectively; and shall grant on application, certificates of such Registration on payment of such fee as may be fixed by By-Law; and the said Registrar shall make new Registers for each year, and omit therefrom the names of persons deceased or transferred from one Register to another.

14. The Annual General Meeting of the College shall be held alternately in the Cities of Montreal and Quebec, on the second Tuesday in the month of June in each year, or such other day near thereto as shall be determined by the Council.

15. On and after the First day of May, 1875 it shall be unlawful for any person except a registered Licentiate or Member of the College of Physicians and Surgeons of Lower Canada, to keep open any store for the retailing, dispensing, or compounding of the Poisons enumerated in Schedule A, or to sell or dispense the said enumerated Poisons, or to engage in the dispensing of prescriptions, or to assume or use the title Chemist and Druggist, or Chemist

or Druggist, Apothecary or Pharmaceutist, or Pharmacist or Dispensing Chemist, within this Province, unless he be registered in accordance with the provisions of this Act as Licentiate in Pharmacy; and it shall be unlawful for any such Druggist, Chemist, Pharmaceutist or Pharmacist, to employ any clerk or apprentice in any shop or store for the sale of such Poisons or in the dispensing of Medicines, except such clerk or apprentice be registered as required by this Act.

16. Any person offending against the provisions of the preceding section, shall incur a penalty not exceeding to be recovered before any Magistrate, together with costs; which said penalty and costs, in default of immediate payment, shall be enforced by distress; and in default of sufficient distress the defendant shall be liable to be imprisoned in the common gaol of the district for a period not exceeding ninety days, unless such penalty and costs be sooner paid; such penalty to be paid to the Treasurer, and to be applied to the general purposes of this Act.

17. If any person shall falsely represent by any name, title or description, that he is registered under this Act, or falsely represent the class or grade of his registration, or engage himself as a certified clerk, not being registered as such, he shall upon conviction before a Magistrate, be liable to a fine for, every such offence not exceeding together with costs; which said penalty and costs, in default of payment, shall be enforced by distress and in default of sufficient distress, by imprisonment as provided by the preceding section; and no person competent to be a witness in any suit or prosecution in which the Corporation may be engaged, shall be deemed incompetent by reason of his being a member or officer of the said Corporation.

18. It shall be unlawful to sell any of the Poisons named in Schedule A, unless the box, bottle, vessel, wrapper, or cover in which such poison is contained, be distinctly labelled with the name of the article and the word "Poison," and with the name and address of the seller of the poison. And it shall be unlawful to sell any poison to any person unknown to the seller, unless introduced by a person known to the seller; and on every sale of any such article the seller shall, before delivery, make or cause to be made an entry in a book to be kept for that purpose, stating in the form set forth in Schedule B to this Act the date of the sale, the name and address of the purchaser, the name and quantity of the article sold, and the purpose for which it is stated by the purchaser to be required, to which entry the signature of the purchaser, and of the person, if any, who introduced him, shall be affixed; and any person selling Poison otherwise than is herein provided, shall, upon conviction before a Magistrate, be liable to a penalty not exceeding ; and for the purposes of this section the person on whose behalf any sale is made by any apprentice or servant, shall be deemed to be the seller.

19. The several articles named or described in Scedule A shall be poison, within the meaning of this Act, and the Council of the said Corporation may, from time to time, by by-law, and with the concurrence and approval of the Board of Governors of the College of Physicians and Surgeons, declare that any article named in such by-law be deemed a poison within the meaning of

this act, and it shall then be added to and become part of Schedule A, and such addition shall be advertised in the Quebec Official Gazette.

20. All penalties imposed under this Act shall belong to and be payable to the said Corporation, and shall be applied for general purposes of this Act.

21. The Act passed in the Session of Parliament in Canada, held in the 27th and 28th years of Her Majesty's reign, chapter 51, is hereby repealed, and section 16 of chapter 71 of the Consolidated Statutes of Lower Canada thereby repealed, shall not revive, but shall be considered as repealed, notwithstanding the repeal of the said Act.

22. Nothing in this Act shall interfere with the privileges conferred upon Physicians and Surgeons by the various Acts relating to the practice of Medicine and Surgery in this Province, nor with the business of wholesale dealers in drugs in the ordinary course of wholesale dealing, nor with Chemical Manufacturers, nor with duly licensed Veterinary Surgeons.

23. This Act shall be deemed a public Act, and may be cited as the Quebec Pharmacy Act of 1874.

SCHEDULE A.

Arsenic and its preparations.
Prussic Acid.
Emetic Tartar.
Cyanide of Potassium and all Metallic Cyanides.
Aconite and its preparations.
Opium and its preparations, with the exception of Parigoric and Syrup of Poppies.
Essential Oil of Almonds, unless deprived of Prussic Acid.
Corrosive Sublimate.
Cantharides.
Savine and its Oil.
Ergot of Rye and its preparations.
Strychnine and all poisonous vegetable Alkaloids and their Salts.

SCHEDULE B.

Date.	Name of Purchaser.	Name and Quantity of Poison Sold.	Purpose for which Poison is required.	Signature of Purchaser.	Signature of Person Introducing Purchaser.

The Bill was read to the meeting, and several important suggestions were made to which Mr. Mercer agreed. It was not deemed advisable to discuss the Bill clause by clause, inasmuch as the College expressed a desire that the Pharmaceutists should obtain for themselves Legislative authority to regulate their own curriculum. The following report was handed in and submitted to the meeting. The Committee on the Bill to amend the Act of Incorporation of the Pharmaceutical Association of the Province of Quebec, and to regulate the sale of Poisons, beg to report that at a meeting held on the 6th July instant, there were present as representing the College—Drs. Scott, Fenwick, Robillard, Peltier and Rottot, and on the part of the Pharmaceutical Association :—N. Mercer, and Henry Lyman, Esqrs., and that they concurred in the adoption of the said Bill as proposed by the Association with the following amendments :—

"That it shall be rendered compulsory for Students in Pharmacy, to qualify them for examination, to attend one or more courses of Lectures on Botany, Pharmacy, and Practical Chemistry, also that clause 15 of the Bill be amended as follows—After the words any person in the first line—there shall follow—except a registered Licentiate or Member of the College of Physicians and Surgeons of Lower Canada.

(Signed,) W. E. SCOTT, M.D., Chairman,
J. P. ROTTOT,
G. E. FENWICK,
E. ROBILLARD,
H. PELTIER.

It was then moved by Dr. Howard, seconded by Dr. Hingston, that the report be received and adopted—Carried.

The next subject for discussion was the notice by the Hon. Dr. Ross, of Quebec, seconded by Dr. Dubé, of Riviere du Loup (*en bas.*)

"That at the next Triennial Meeting of the College, he

will propose amendments to the law concerning the Study and Practice of Medicine, Surgery, and Pharmacy; and that a Committee composed of Drs. Scott, Landry, Jackson, Ross and Dubé, be named to enquire into such amendments, and report at said meeting."

It was decided that in the absence of both the proposer and seconder of the above motion, and also inasmuch as no report from the Committee above named was forthcoming, that the subject would have to lie over for the present. The Committee reported that the following gentlemen had sent their proxies, and that they were entitled to vote having paid all dues, viz: Drs. G. W. Campbell, Craik, MacCallum, Drake, Schmidt, W. H. Taylor, Desjardins, Dagenais, Austin, Marsden, Roddick, G. Ross, A. G. Fenwick, J. P. Russell, Hon. J. J. Ross, Reddy, Weilbrenner, Girdwood, Church, Chmb erlin, Gardner, Trenholme, Kennedy, Godfrey, F. X. Perrault, A. Brosseau, and D. T. Scholfield. The next business of the college was the election by ballot of 36 Governors to serve during the ensuing three years. Drs. Rinfret, Gibson, and G. E. Fenwick, were appointed to act as scrutineers, and the ballot having been taken, the members adjourned to allow the scrutineers time to make up their report. After re-assembling the following gentlemen were declared duly elected Governors for the ensuing three years:

For the city of Montreal, — Drs. Scott, Howard, Peltier, Rottot, Godfrey, Hingston, Robillard, and G. E. Fenwick,

For the District of Montreal.—Drs. Chamberlin, Weilbrenner, Brigham, Gibson, Church, Duchesneau, and F. X. Perrault.

For the city of Quebec.—Drs. J. E. J. Landry, R. H. Russell, Jackson, Tessier, Rinfret, Robitaille and Rousseau, and Belleau.

For the District of Quebec.—Dr. Michaud, L. J. E. Desjardins, Marmette, Dubé, Tetu, P. Pelletier and St. Georges.

For the District of St. Francis. — Drs. Worthington, Gilbert and Hamilton.

For the District of Three Rivers.—Drs. J. J. Ross, A. G. Fenwick and Landry.

The Governors elect then proceeded to chose by ballot the officers for the ensuing term of three years, with the following result:

President, R. H. Russell, M.D., Quebec; Vice-Presidents, Drs. R. P. Howard and Marmette.

Secretary for Montreal, H. Peltier, M.D.

Secretary for Quebec, A. Belleau, M.D.

Registrar and Treasurer,—E. Robillard, M.D.

A vote of thanks was passed in favor of the retiring officers. It was unanimously decided that the next Triennial meeting to be held in July 1877, should take place in the town of Three Rivers, of which due notice will be given in the usual way by advertisement. The thanks of the College were proffered to the authorities of the Court House for the use of the Court rooms. No further business being before the college, the meeting was declared closed.

PERSONAL.

Dr. R. A. Stevenson, a graduate of the University of McGill College, of 1871, passed through Montreal last week on his way to England, where he intends to spend some time in attending the various London Hospitals. Dr. Stevenson has been practicing in Strathroy, Ont., and has secured by his gentlemanly address and professional skill not only a flourishing practice but also a numerous circle of friends. On his departure from Strathroy he was entertained at a supper by his friends, and presented with a pusre of $150, with which he was to purchase in England, a set of instruments, as a mark of the respect and esteem in which he is held by his fellow citizens.

We wish Dr. Stevenson all success in his visit to the mother country, and we are sure that he will derive not only pleasure but profit, from a view of the medical and surgical practice of the great lights of our profession in the old world.

ABSTRACT FOR THE MONTH OF APRIL, 1874.

DAY.	THERMOMETER. 9 a. m.	3 p. m.	9 p. m.	Mean	Max.	Min.	Range		BAROMETER. 9 a. m.	3 p. m.	9 p. m.	Mean.	Rain and Sleet.	Snow. Melted	Constant + 0.100 used in all Barometer Readings.
1	8.5	21 5	17.5	18 5	25 5	0.5	25.0		30.330	30.145	30 067	30.181	.....	.....	Coldest day.
2	24.7	43.0	37.5	35.1	44 0	9.0	35.0		29.875	29.765	29.715	29.785	.....	.....	Greatest range ther. 35.
3	30 5	32.2	23.5	28 9	33 7	30.0	3.7		.593	.703	.778	.691	.....	0.07	
4	11.6	21.0	15.8	15 4	21.5	6.0	15.5		.948	.937	30.086	.990	.....	.....	
Sunday 5	24.2	33.2	32 0	29.8	34.1	12 0	22.1		30 170	30.115	29.035	30.073	.....	.....	
6	31.0	37.5	31.5	33.3	38 5	27 5	11.0		29.628	29.820	925	29.791	.....	0.17	
7	34.7	43.5	37.5	38.5	45.8	29 0	16 8		.926	.885	.976	.929	.....	Inapp.	Aurora midnight.
8	35.2	37.5	30 5	34 8	39 0	28.5	11.5	Mean of	30.055	30.016	30.025	30.032	.....	0.17	
9	28.5	36.3	30 8	31.8	37.8	26.8	11.0	10 days.	.120	.095	.135	.117	.....	.....	
10	26.0	33.0	30.4	29.8	34.2	24.3	9 9	29.69	29 840	29.845	29.840	29 841	.....	.....	
11	31.8	36.2	26.0	31.3	42 0	24.5	17 5		.735	.943	30 150	.909	.....	0 15	
Sunday 12	18 5	31.5	25.0	25.0	32.3	10.2	22.1		30.395	30.420	.425	30.413	.....	.....	
13	30.0	40.5	34.7	34.4	42.0	20.7	21.3		.456	.256	.122	.277	.....	.....	Highest Barometer.
14	42.5	52.5	43.5	46 1	54 3	29.2	25.1		29.987	29.835	29.775	29 866	.....	.....	
15	48 6	51.5	49.8	49.9	53.2	38 5	14.7		.657	.597	596	.617	0.08	.....	Warmest day.
16	31.5	38.5	32 7	34.2	40.3	25.0	14.3		30 060	30.195	30.198	30.151	.....	.....	
17	32.0	...	....	32.0	37.1	28.8	10 3		.298	.....	.....	.298	.....	.....	
18	36.0	....	....	36.0	47 8	24.1	23.7	Mean of	.317	.....	.....	.317	.....	.....	
Sunday 19	37 0	51.0	39 7	40.2	52.8	35.0	17.8	10 days.	.187	30.205	30.285	.229	0 84	.....	Snow, sleet and rain.
20	31.8	34 5	34.0	31 4	34.8	30.2	4 6	56.35	.137	29 873	29.615	29.875	.....	.....	
21	35.8	37.0	31 2	35.7	37.5	32.5	5.0		29.498	.705	.876	.693	.....	Inapp.	
22	38.0	43.2	37 0	39 1	44 2	27.5	16.7		.987	.956	30 035	992	.....	.....	
23	38.5	42 0	34.2	38.2	43.8	29.3	14.5		.898	858	29 883	.879	0.11	.....	Snow and rain.
24	33.2	41 3	35.0	36.5	43.3	28.5	14 8		30 065	30.116	30 196	30.126	.....	.....	
25	42.0	48.7	39 8	43.5	49.8	27.0	22.8		.105	048	29.875	.009	.....	.....	First vessel entered port.
Sunday 26	32 6	34.2	35.0	33 9	35.2	32.0	3.2		29.616	29.641	.778	29.678	.....	0.67	Snow storm.
27	41.8	43.8	35.7	40.3	43 8	31.8	11.0		.915	926	30.015	.952	.....	.....	Least range ther, 3.2
28	32 5	43.2	36 0	37.2	44.0	25.0	19.0	Mean of	30 078	30 015	.026	30.039	.....	.....	
29	32.5	32.0	31.0	31.5	34 2	30.0	4.2	10 days.	29.946	29 827	29.768	29 847	.....	.....	Lunar Halo.
30	31.5	38.2	35.8	35.2	39.0	26.5	12.5	37.11	.835	.345	.426	.385	.....	0.21	Snow storm.
	....	....	....	....	....	.. ..	....		.....	.....	.....	.....	.....	.....	Lowest barometer.
SUMS....	....	....		...	....	....	....		.....	.....	.....	.....	1.03	1 41	
MEANS	34.96	....	33.80	37.52	39.85	94.93	....	37.52	.....	.....	.....	29 989	.....	.....	

ANALYSIS OF METEOROLOGICAL OBSERVATIONS BY T. D. KING FOR THE MONTH OF APRIL, 1874.

Mean temperature of the month, 37.52; mean of the maxima and minima temperatures, 32.39; greatest heat on the 14th, 54.23; greatest cold on the 1st, 0 5 above zero—giving a range of temperature of fifty-four degrees. Greatest range of the thermometer on the 2nd, 35.0; lowest range on the 26th, 3.2.

Mean height of the barometer corrected for temperature 32°, and reduced to sea level (constant applied + 0.100) 29.989; highest reading of barometer on the 13th, 30.456; lowest reading on the 30th, 29.345—giving a range of 1.111 inches.

Rain and snow fell on fourteen days; amount of precipitation when the snow was reduced to its equivalent of water, 2.47 inches. Reckoning 10 inches of snow to be equivalent to 1 inch of rain-water, the depth of the snow fall may be estimated at 1 foot 5 inches.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Axillary Aneurism—Ligature of Subclavian Artery. Recovery.—By George Ross, A.M., M.D., Professor of Clinical Medicine, McGill University. Reported by Mr. E. B. C. Harrington.

A. C., stone-cutter, aged 24 years, was admitted into the Montreal General Hospital on the 20th May, 1874, under the care of Dr. Ross. He is a well made young man, six feet in height, with black hair and eyes, clear complexion, and intelligent countenance. He has always lived in a country town ; had never been intemperate, and beyond one gonorrhœal attack, has been free from venereal diseases. There is no syphilitic family history. When a lad he was laid up with pneumonia, but completely recovered and enjoyed capital health until four years ago, when he had an attack of acute inflammatory rheumatism, involving the joints of both lower extremities.

This prevented his working for a year, keeping him in bed about half that time, while ever since he has suffered from irregularity in the heart's action, upon any excitement or exertion. Last Autumn he was troubled a great deal from alternating chills and fever, which ultimately caused much weakness and loss of flesh. He had not at any time previous been exposed in a malarious district, and his physician assured him that it was not "fever and ague." At this time he experienced a severe pain over the cardiac region, extending thence in a line to a point just above his

right nipple. This pain was increased by any exertion, or by stooping, while in addition to this his bowels were constipated and digestion impaired.

On the 3rd of January, while at some distance from his house, he was seized with a sharp pain, which began in his right shoulder and then ran down the arm; and almost immediately the whole limb became cold and white. He at once started for home, and while walking had occasional attacks of giddiness, stumbled and had a "swimming blackness" all around him. Friction and warmth were used in endeavoring to re-animate the limb, and at midnight when he was sitting up, his friend still rubbing his arm, he felt a cold chill run up his left side, then came numbness and pricking, followed by complete loss of sensation and motion in the left side.

He did not lose consciousness, and the left side of his face was merely deprived of sensation, the motor power not being affected. He had some difficulty in his speech, being thick-tongued for forty-eight hours, while his memory was impaired for about the same length of time. In the week following he had retention of urine, which necessitated the introduction of a catheter twice or three times.

In the *right arm* both power and sensation were absent for a fortnight, while the limb kept blue and clammy, but at the end of this period, with the disappearance of the pain in his shoulder, the functions of the part were somewhat restored.

After the hemiplegia of the *left side* had lasted six weeks, galvanism having been applied daily, both motion and sensibility re-appeared, coming simultaneously in both extremities.

In the meantime the right arm had gained considerable strength, and continued improving, until the end of February, when the old excruciating pain again made its appearance in the right shoulder, and he now for the first time noticed a swelling about the size of a walnut projecting into the right axilla. This tumor was supposed by his medical

attendant to be an enlarged axillary gland, while the pain was treated as of rheumatic origin ; not being improved by the treatment, and getting alarmed at the steady growth of the tumor, he came by Dr. Moore's advice to the General Hospital.

Condition on Admission.—The right arm hangs, cold and livid by his side, all motion in it being limited to slight action of the Biceps and Deltoid muscles. The second and third phalanges are rigidly flexed upon those of the first row, the nails being purple, while there is not the faintest pulsation in either the radial, ulnar or brachial arteries. Sensation appears good over the whole limb.

In the axilla is a tumor the size of a large lemon, which fluctuates, pulsates forcibly, and gives a very perceptible thrill to the hand, and by auscultation a bellows sound or whizzing bruit. The pulsation is entirely controlled by pressure on the subclavian over the first rib. The size is lessened, the throb is diminished, the bruit decreased, by pressure above, and vice versâ, they are all exaggerated by pressure below, or by elevation of the limb. Great pain with numbness is complained of *through* the shoulder, but there is no particular tenderness at any point. By percussion the heart was found to be normal in size : the apex beat occupying the fifth interspace, and in a direct line with the nipple.

By auscultation the sounds at apex were found healthy. At the base was noticed a slight roughening of the first sound. Each sound was distinct, and the roughness, which could hardly be called a murmur, was most audible over the aortic cartilage, being lessened above and below. Lungs, and other organs normal. Urine contains no albumen, and otherwise healthy.

Since the patient has been put to bed he complains of no pain, is very cheerful, and anxious to be operated upon, if necessary.

May 26.—The aneurism being controlled so well by pressure on the subclavian, Dr. Ross decided to give

digital compression a trial before resorting to ligature of the artery. Accordingly the patient was placed on a mattress, with his head and shoulders in a lower, yet comfortable position, and at 2.30 p.m. four students undertook the task of compressing the subclavian artery, in its third portion, just where it passes over the first rib.

May 28.—Compression has been faithfully kept up for the last forty-eight hours, the students relieving each other every half hour.

After the first hour the patient lost all sensation and power in the arm, and could not tell where it was, excepting by feeling for it with his other hand. After an hour it gradually began to recover sensation, and became warm and rosy. By means of a hypodermic injection of an eighth of a grain of morphia, twice in the night, he managed to sleep well. His bowels were not moved, and the urine was withdrawn by a catheter. All pulsation was completely controlled, excepting during the change of hands.

No change whatever has been effected in the tumor. A small cutaneous slough has been developed in spite of the greatest care, and the young man's patience is entirely exhausted. Digital compression was therefore abandoned, and a dressing of Ung. zinc oxyd. applied to the tender surface.

The patient was subsequently seen by Drs. Campbell, Howard, Reddy, Fenwick, and others of the Hospital staff, and it was agreed, in view of the fact that the tumor was rapidly growing, and that, through delay, any operation would in all probability be rendered more difficult, that as soon as possible the subclavian should be tied. The dangerous character of the operation was fully laid before the patient when he unhesitatingly decided for himself that it should be done.

Accordingly on the 5th June the operation for ligature of the subclavian in the third part of its course was performed by Dr. Ross, assisted by Drs. Campbell, Fenwick, Reddy, and Howard, in the presence of the Medical Staff of the

Hospital, as well as several other medical gentlemen, amongst whom was Dr. Moore, of Troy, N. Y., who had previously had charge of the case.

Chloroform having been administed by Dr. Cameron, Assistant House Surgeon, the skin of the neck was drawn down by the operator's left hand, and an incision made directly upon and along the clavicle for a distance of four inches; a second incision was then carried upwards from the inner angle of the foregoing for a distance of two inches along the posterior edge of the sterno-mastoid muscle. The included flap was carefully dissected up, and the external jugular vein exposed; this was readily drawn inwards by a blunt hook, and thus held away from injury during the remainder of the operation. The deeper layers of fascia were then disposed of, partly by division on a director, and partly by scratching through with the nail and knife-handle, all vessels being carefully avoided. There was no bleeding and the posterior edge of the scalenus anticus was soon reached. What was believed to be the vessel was now felt against the rib, but on passing an aneurism-needle beneath it and compressing it, no effect was produced upon the aneurism. This was, no doubt, the suprascapular artery much enlarged and tortuous. It was, therefore, immediately released. Although the subclavian could now be distinctly felt between the finger and the first rib, yet, owing to the depths of the parts, it was not easy to pass the needle fairly around it. The lower branch of the brachial plexus of nerves was thus mistaken for the artery for a moment, but careful examination soon exposed the error. Finally, the needle was gently passed round the subclavian from below upwards, just outside the edge of the anterior scalenus muscle. It was secured by a ligature of carbolised silk, the end being allowed to hang out of the wound. The flap was closed by sutures of carbolised catgut, and the wound dressed with carbolic water—1 to 40. A small opening was left at the depending corner for drainage. He was then laid on a hair mattress, his shoulders being kept as low as possible with comfort.

For several days he remained quite comfortable, free from pain, sleeping well under the influence of a small hypodermic injection of morphia, pulse from 100 to 108, and temperature only a little above 99°; but on the 12th, complained for the first time of a pain in the right side, about the nipple, pulse rose to 118 and temperature to 101°. No abnormal sounds could be heard on auscultation. He was relieved by a sinapism and an enema, and next day the temperature had fallen again to 99°. The wound meanwhile was granulating and discharging a very moderate quantity of healthy pus.

17th June.—12th day after operation. The ligature separated to-day without accident. Pulse 110; temperature $98\frac{2}{5}$°. Feels well and takes nourishment very freely.

The day following the temperature was 101° and for the ten succeeding days he is reported not progressing quite so well, some pain in the neck having been complained of together with two or three slight chills at intervals; temperature ranging from 100° to $101\frac{4}{5}$°, and the pulse from 110 to 120. Diarrhœa was also troublesome about this time and some fears of the possibility of the commencement of septicæmia were entertained. The discharge of pus had become rather more profuse. However, by the 28th the report is much more favorable; "Pulse 90, temperature $98\frac{1}{5}$°. Diarrhœa ceased; general appearance good; wants to get up and go out."

4th July.—Was up to-day and spent the afternoon on the verandah. Discharge much diminished, is applying red wash in place of the carbolic solution.

5th July.—Had a violent paroxysm of palpitation of the heart this morning, without any apparent cause and lasting several minutes. Has had similar attacks before.

8th July.—Has been up the last two days; was discharged to-day and went as far as Troy, N. Y. The wound is entirely closed in its deeper parts and only a narrow granulating strip is left to heal. The mass of the aneurism has shrunk to at least one-fourth its original

dimensions and is only to be felt as a small, round, smooth lump deep in the axilla.

I was subsequently informed by letter that after the railway-journey he had had a very severe cough and had expectorated a large quantity of thick and dark pus and appeared much tired and depressed, but a few days later (16th July) I received a note from Dr. Moore, under whose care he then was, which reports as follows :— "Cough much less, expectoration much less. and the appearance of it more healthy ; wound nearly closed ; relishes his food well ; sits up five or six hours every day ; general appearance very good."

Remarks.—This case is one of considerable interest, especially as, so far as I have been able to ascertain, it is the first of the kind which has been performed in Canada. If this is not so, I should be glad to be set right in the matter. The mortality of ligature of the subclavian artery has been so large even in the hands of the most experienced surgeons—recent statistics showing it to be about 50 p.c. of all the cases—that naturally every expedient will be resorted to before having recourse to such a formidable procedure. Digital compression was fairly and faithfully tried by intelligent and zealous students, but entirely failed. There can be no doubt that these cases are less adapted for this method of treatment than popliteal aneurisms, the femoral artery being much more easily compressed and pressure there being better borne. The only other plan of treatment possible was the application of galvano-causty. I had not, however, within my reach the apparatus necessary for this.

As regards the operation itself, the only difficulties met with were the temporary interruptions mentioned in the report. To any one, however, who is intimate with the anatomical relations of these parts and acquainted with the numerous similar positive errors committed by eminent surgeons, such will not appear at all surprising.

Mr. T. Holmes, in the third vol. of Holmes' Surgery,

states that probably the chief cause of ill-results after this operation will be found to be pleurisy and inflammation of the subserous cellular tissue leading to purulent formation in the anterior mediastinum. I would submit it as a question whether some such subserous inflammation might not have been, in an obscure way, going on to account for the indefinite feverish symptoms noticed in the report; and whether from the jolting in the railway carriage such a purulent collection might not have found its way into either the trachea or a large bronchus which it was preparing to open. I can see no other explanation of his suddenly expectorating a large quantity of dark pus almost immediately on reaching home. This, however, appears to have been followed by complete relief, as was found to occur in several cases reports of which have been published.

Another clinical feature of interest in this case is the occurrence of almost complete but temporary hemiplegia of the left side, following closely upon the blocking up of the right axillary artery by the aneurism. Was not this embolic? If so, what connection was there between the existence of a right axillary aneurism and the plugging of a right cerebral artery with a clot?

I am much indebted to Mr. Harrington for the foregoing report, and for his management of the compressing staff, as well as to several of his fellow-students who composed the same.

Medico-Legal Evidence in Identification of Human Remains after Exposure to Fire. By G. P. Girdwood, M.D., M.R.C.S., England, Professor of Practical Chemistry, McGill University.

It so seldom occurs that a medical jurist is called upon to express an opinion concerning portions of a human body, or fragments suspected of being portions of a human body, after those fragments or portions have been submitted to

the action of fire ; that I desire to lay before the profession a few notes, concerning two cases in which my opinion was asked ;

On referring to such works as I can I find mention made only of the case of Dr. Parkman, who disappeared suddenly in Boston on Nov. 23rd 1849, and whose remains were subsequently discovered in and around Dr. Webster's laboratory. Fragments of the skull bones were found in the ashes of the laboratory furnace which when put together enabled a dentist who had fitted some artificial teeth for Dr. Parkman, to identify the jaw and artificial teeth as belonging to Dr. Parkman, thus proving the identity of the remains.

In the first case which came under my observation I was invited by coroner Jones to examine some bones which had been burnt, and to determine if possible whether or no they were human bones.

The history of the case as appeared subsequently at the trial, "the Queen v. John Henry Wilson, for murder" was briefly as follows.

Wilson's mother had contracted a second marriage, against her son's wish, in consequence of which an ill feeling had sprung up between himself and his stepfather who held a small farm, and obtained his living partially by burning lime and partly by farming. A kiln for the purpose of burning lime was near the house ; this squabble continued and increased to such an extent that Wilson left his stepfather's house and sought and obtained employment in the neighborhood.

The stepfather and the mother remained at the house with two little children. The stepfather proceeded with his avocation of lime burner, and when so occupied was in the habit of sleeping out beside the lime kiln in a wood shed so as to be ready to tend his fire, and usually had a buffalo skin to sleep on.

One evening the mother went to the village of Caughnawaga and remained the night with some sick relatives, leaving the two children in the house, and her husband,

burning lime at the kiln. That night Wilson visited the house, the children hearing a noise asked who was there to which question Wilson replied it was he, and asked them where the axe was. They answered, in the wood shed. The stepfather was never seen afterwards. Wilson continued to burn the lime, for a full week, and it was stated with a more than usually large fire. When asked where his stepfather was, he answered that he was gone to the States. After burning the lime for over a week, he drew the fire, but at the same time broke in the arch of the lime kiln, so as to let the lime into the ash hole. This was soon after harvest and the crops had been cut and gathered in from the field adjoining the kiln. A side road ran past the kiln, and came into swampy ground of deep black loam into which the cart wheels sank deeply, in several places round about the kiln in the adjoining field and particularly into these cart ruts Wilson was seen to be strewing ashes and these ashes he stated were from the lime kiln fire, and when asked what bones those were amongst the ashes he was reported to have said his stepfather's. It was from those places that the bones had been collected which were submitted to me. Some of these bones had become quite like porcelain from the action of the heat, and were so hard that I could not cut them with a steel saw, others were not so hard, but had been cracked by the heat and being deprived of gelatinous matter, were very friable. These had been put into a pocket handkerchief and tied up, and allowed to grind together, so that by the time I had an opportunity of seeing them, they were considerably damaged. I visited the spot and picked up some other bones myself. Those portions which I was able to identify, were the processus dentatus of the axis together with a portion of the superior articulating surface of the left side attached to it, a portion of the first rib, a fragment of the symphysis pubis, a portion of the patella, both astragali, the internal cuneiform bone of the left foot and the scaphoid of the right foot, the base of metatarsal bone of the little toe of the left foot, and some of the

phalanges. The os magnum of the left hand and some of the phalanges of the hands. These bones and fragments of bones I have soaked in gelatine, to prevent further destruction.

To identify these as portions of a human body was the first duty. On those fragments an inquest was held and the prisoner was committed. At the trial the identity of these bones rested on the fact of the finding of two buttons which are buttons similar to those found on the United States soldiers' jackets one of which the missing man usually wore, and had on at the time he was last seen, and by a metal buckle which deceased wore on a leather strap round his waist.

The second case is one the features of which most of you are probably familiar with, they are as follows: A young woman was supposed to be in the family-way who should not have been. It was supposed she had been confined, and had made away with the infant. Under this supposition the premises where she lived were searched by the chief constable who found in the stove, some bones and fragments of bones that had been burnt. These bones were submitted to me to determine if they were human bones, and if so, were they the bones of a newly born infant, either at or shortly before maturity. I had little difficulty in determining both these questions, firstly they are not human bones, and secondly they could not be bones of a newly born infant.

Both these cases have points of interest, and are instructive, and more particularly to junior members of our profession. The former case shows the changes that bones may undergo when submitted to high temperature for a considerable period, and through what apparent dangers their form may be preserved so as to be capable of identification. It is curious how so large a bone as the astragalus should have remained uninjured, and so few of the long bones of much denser structure should be present in the debris. It may have been that the long bones and head bones had been removed to another place and escaped find-

ing, but the presence of the hand bones and bones of both feet, patella, and of the axis, so intimately connected as it is with the skull, lead to a fair inference that these were representatives of a whole skeleton.

The bones in the second case, point to the necessity of a medical education embracing a course of comparative anatomy, for on examining these bones even cursorily their origin is shown at once by their lightness, and the large cavity within and the thin external shell, and the large cancelli and the pillars crossing between the sides of the shell pointing to the air cavities existing in the bones of birds and their adaptation to the purposes of the animal to which they belong. They could not be bones of an infant for independently of their shape the epiphyses are all attached showing that the animal had arrived at puberty. There are two fragments which require comment, they are fragmentary and the cancelli are large and loose, these two bones I believe to be portions of the rib bones of a pig. The others the leg and wing bones of a good sized and well ossified chicken. The question naturally arises how came these bones in the stove, the answer simple. These people are living in a tenement house, and having no convenience for disposing of them otherwise, threw them into the stove as soon as they had got all they could out of them. As a sanitary measure burning is probably the best way of getting rid of such refuse. In this case the coroner objected to hold an inquest on the bones. I am informed that they were submitted to a gentleman, who thought they might be monkey's bones and the magistrate Captain Brehaut, was constrained to ask of me a private opinion on these bones from not being able to get proper instructions, and the unwillingness of the authorities to incur any expense in the matter.

Correspondence.

We have heen requested to insert the following letter, addressed to the *Toronto Mail*.—Ed.

MEDICAL ETHICS AND JOURNALISTIC HONOUR.

To the Editor of the Toronto Mail.

Sir,—The courteous editor of the *Canada Lancet*, although unwilling to allow me to speak in its columns, has not scrupled to assail me in a manner, which will be characterized as I proceed. His limping editorial of more than a column concludes with the words "*verbum sat sap.*" If a word to the wise is sufficient, the compliment he pays to his readers is obvious.

If this were a personal matter I would not trespass upon the general public; but principles of equity and ethics are involved concerning the medical profession of Ontario at least, and I naturally seek the most certain way of reaching the ear of the Ontario profession—through the columns of *The Mail*, being denied the privilege in the *Lancet*.

The question discussed in my former letter, which you kindly inserted some time ago, was: "Should a medical man write in the general press to meet the arguments and misrepresentations of that press against his profession?" The editor of the *Canada Lancet* says no, "because such writers may justly be suspected of trying to exalt their own personality." In language intended to be inoffensive I discussed this subject in the light of the events connected with the late legislative action. But the editor of the *Canada Lancet*, unable to controvert my arguments, again adopted the tactics of the *Globe*, and, while refusing to publish my letter, resorted to the most unfair and unmanly course of misrepresenting me; and upon these misrepresentations basing

a tirade of abuse. It is hardly necessary for me to say that all I ask is fair play of the editor of the *Lancet*, and then I am perfectly content to allow the medical public to judge who is right. And this is what will be done in spite of the efforts of the *Lancet* to deceive its readers and to be personal. Finding himself incompetent to answer arguments, the courageous editor endeavours to raise a false issue, and, regardless of the absurd position he takes, repeates his stereotyped words sbout "efforts to exalt one's personality." It was not agreeable to the valiant editor to have his weakness exposed in the public press, and so he attempt to make a point by charging me with a desire to exalt my personality in taking steps to place my letter in the hands of those who had most likely read the *Lancet*. Now, it is perfectly plain the editor of the *Lancet* knew he was writing nonsense, because, in a previous sentence, he declares that he would make known my personality only for mercy's sake! The fine sense of honour here manifested will be refreshing to journalists in general. The editor of the *Lancet* claims that it is mercy alone which prevents him from divulging the name of a correspondent, given to him in confidence, under the belief that the editor of the *Lancet*, like other journalists, held such confidence as sacred. So far as the writer of these lines is concerned, he is not aware that more than two medical gentlemen know his name, and he is ignorant that any one but the editor of *The Mail* outside of the profession has any knowledge of his identity. Therefore, if he be known, it is in consequence of the want of the ordinary professional honour and sacredness of the editorial chair exhibited by the *Lancet*. I may say here, I neither court nor shun publicity. I wrote to the *Lancet* over an assumed name in order that the question might be regarded independently of individuals ; but from the first the *Lancet* has been trying with discourteous intent to drag my name before the public. I now inform the editor of the *Lancet* that he is at liberty to place my name to the several letters if he will thereby be induced to publish them.

It seems to have touched the sensitive editor to have my letter distributed among the medical men and the medical students attending the hospital. He "supposes these fly sheets were distributed among my patients." The absurdity of this statement is apparent when it is remembered that my name is unknown, unless revealed by the accommodating man of all works, who carries information to the editor from the Hospital. The fact is the fly-sheet was placed only in the rooms devoted to the doctors and students; and I charge the editor of the *Lancet* with a knowlege of this when he penned his article. But I am sure it will surprise the medical public to learn that this same would-be-censor, who deliberately misrepresents one, is wont to bid for popularity and students (with an eye to future subscribers) by carrying his precious *Lancets* to the lecture-rooms and gratuitously distributing them. Perhaps it is, however, a part of the agreement he has with his advertising friends to thus spread abroad unseemly anatomical plates. And I think it is about time I spoke more fully respecting those plates. For months there has appeared on the outside of the *Lancet* certain "figures" and representations to catch the eye of the public, one of which particularly might well receive the attention of those whose duty it is to prevent the distribution of obscene literature. I have no doubt the editor of the *Lancet* is induced to thus sacrifice respectabilily by a handsome sum which might even satisfy one of the "avaricious dispensers," to use the polite language of the *Lancet* when speaking of druggists. But it does not become such an one to undertake to point out motes in the eyes of others, much less to attempt to remove them.

Thanking you for the uniform courtesy extended to the medical profession by *The Mail*,

I am, &c.,

ETHICS.

Toronto, July 8, 1874.

Reviews and Notices of Books.

A System of Midwifery, including the diseases of pregnancy and the puerperal state. By WILLIAM LEISHMAN, M.D., Regius Prof. of Midwifery in the University of Glasgow, Physician to the Lying-in-Hospital, &c., &c., 8vo. pp. 715. Philadelphia; HENRY C. LEA, 1873.

The author states in his preface, that his aim in writing this work has been to furnish to students and practitioners a complete system of the Midwifery of the present day, and how well he has succeeded in his arduous undertaking, all, who read his work will readily acknowledge. We have no hesitation in recommending this as the most useful book on the subject to the student and practitioner, in the English language. The author gives the substance of the most modern views on the subject, and gives them in an easy and readable style. The subject is treated of fully in all its parts, and nothing is slurred over. We first get a very complete description of the pelvis, with its muscles, ligaments and articulations, to each and all of which their peculiar part is assigned in the act of parturition. The diagrams in this chapter are admirably adapted to elucidate this somewhat, to the student, misty subject. Next he describes the female organs of generation, and is especially full upon the mucous membrane of the uterus.

The chapters devoted to the development of the ovum, embryo and fœtus, are well and carefully written.

The mechanism of labour is thoroughly explained, and this is one of the best parts of the book, illustrated as it is by diagrams which would make the process intelligible to the dullest intellect. In the management of labour, whether natural or otherwise, in the treatment of hæmorrhage, and in the management of the pregnant or puerperal woman we have a safe guide in Dr. Leishman, and in cases

where there is room for difference of opinion as regards treatment, the evidence on both sides is carefully weighed, and although the author is, from his wide experience, entitled to speak with authority, he is never dogmatic.

The important subject of hemorrhage is exhaustively treated, and the author seems to lean to the treatment of post partum hemorrhage, by a solution of the perchloride of iron, as recommended by Dr. Barnes, but he only views it as a *dernier resort.*

The cases requiring operative interference are well described, and the mode of procedure fully explained. Turning, especially, is thoroughly explained, and considerable space is devoted to a description of *Bimanual* or *Bipolar Version.*

The rules for the management of the child, and the treatment of the mother after parturition, as laid down by Dr. Leishman, leave scarcely anything to be desired: and, altogether, it is a work which we gladly welcome, and which supplies a long felt want. The student will find it a useful and trust-worthy text book, and the practitioner will soon learn to look upon it as a valued work of reference.

The volume is put before the profession, by the enterprising publishing firm of Henry C. Lea, of Philadelphia, in a shape that does them credit. The paper, type and binding are all good, and the price is moderate. We cordially recommend the work to the notice of the profession, and we do not doubt that a second American edition will soon be called for.

Experimental Researches on the Causes and Nature of Catarrhus Æstivus (Hay Feveror Hay Asthma). By Charles H. Blackley, M.R.C.S., Eng. London: Bailliere, Tindall & Cox. 8vo., pp. 202.

This peculiar disease is one to which comparatively little attention has ever really been paid by good observers, and although the affection is one which has long been recognized as especially *sui generis*, as presenting symp-

toms unmistakable in themselves, and although general descriptions of it are to be found in our various well-known works on medicine, yet it must be confessed that all our ideas on the true etiology or causation of Hay-fever are extremely hazy and indistinct, and have been derived from statements founded upon a very limited number of observations. Investigations into the true cause of any disease are always surrounded with much difficulty, and we find no exception to that statement here. It is not a common affection, indeed in this country it may be said to be extremely rare, and consequently the observations made by any one person must necessarily be conducted only upon a small number of subjects; and further, not being a disease of dangerous character or requiring much medicinal treatment, it is very difficult to keep the same persons under observation for such a length of time as would render their cases useful in a scientific way. Our author himself has been for many years a periodical sufferer from this annoying complaint, and thus enjoyed (?) unusual facilities for experimentalizing and making accurate notes on the various points which would tend to explain its real mode of origin and communication.

There have been quite a number of discrepant theories at various times promulgated to account for the peculiar phenomena so characteristic of true Hay-fever. Its singular and regular recurrence at a definite season of the year, and its equally sudden and certain disappearance at a certain other period of the year,—the fact that attacks were frequently observed to occur in connection with accidental proximity to new-mown hay, or even to a standing crop of the same—soon directed enquirers to the grass, there to seek for some principle which might be proved to be the offender and the guilty irritant. But, apparently with the usual perversity of ingenious theorists, this ground was abandoned by some, the above singular facts being explained away as mere coincidences, and certain other explanations were offered for its production, entirely inde-

pendent of any noxious emanation from the vegetable kingdom. Thus Dr. Phœbus insisted that it was produced by *heat*, and to meet objections at once apparent was obliged to resort to the supposition that the *first heat of summer* possessed certain peculiarities to be found at no other period of the year. It is almost enough to say that Dr. Phœbus' theory was built upon the observation of *one case* (it being very rare in Germany). Dr. Blackley shows abundant reason why this theory is entirely untenable. Others again attribute it to *ozone* in a similar manner that Influenza has been assigned to the same agency. That this cannot be the case is also shown by the author's observations and experiments upon himself. Some prefer to think that simple dust is at the bottom of the trouble: this theory also will not hold water.

But the most interesting observations and experiments are those connected with the elucidation of the problem—which of the elements or substances arising from active vegetation posseses properties which would render it *probable* that it is in itself the true cause of the distinctive symptoms of the Catarrhus Æstivus? There are very good grounds for believing that the complaint has direct connection in some way with certain states of the surrounding or neighbouring vegetation,—and further, from the mode of attack and from the parts affected, (the nasal, buccal and ophthalmic mucous membranes) it is rendered highly probable that the local lesions were produced by direct contact of the noxious agent. That is to say, that the agent must be either of an imponderable or substantially inappreciable nature, or else in such a fine state of division as to readily reach these points during respiration. On this principle, several different substances have in turn been accused; benzoic acid, coumarin (an odoriferous principle found in some of the grasses and other plants), odours of various kinds, and finally pollen.—Most interesting and carefully-devised experiments are here described, performed with a view of determining which, if any, of these

possessed the property of developing the catarrhal or asthmatic symptoms of Hay Fever.—With all except pollen, the results have been entirely negative. This substance, the pollen shaken from the anthers of various grasses and other botanical species (a long list of which is given) is directly proven to excite very great local trouble when directly applied to the nasal lining membrane. Besides this a curious relationship is shown to exist between the severity of the attack at any given time and the actual quantity of pollen present in the atmosphere at that time. Much ingenuity has been displayed in the methods employed for determining this latter point, both at the earth's surface, and at considerable altitudes, by means of kites, &c. Dr. B. thinks that the effects produced by pollens upon the human frame arise from some inherent property and not from the presence of any powerful alkaloid; at any rate none such has yet been discovered. The symptoms of the disease are then described minutely and graphically as could only be done by an actual sufferer, and the diagnosis between this and ordinary asthma clearly shown.

The nature of the lesion causing the catarrhal and asthmatic symptoms is believed to be submucous serous exudation. We will allow that such exudation would certainly give rise to the nasal and faucial symptoms witnessed, but we cannot admit, as the author would have us do, that the same process continued to the larynx, is what produces the asthmatic trouble—the dyspnœa. Although it is not easy to explain certain peculiarities of this dyspnœa, such as effect of position upon it, on the supposition of spasm, yet it is highly improbable that intra-laryngeal œdema—that eminently dangerous condition—should be present in a disease which has never been shown to be in any way dangerous to life. Besides, if this be so, why was not the laryngoscope used, and the actual state of the larynx described? We look upon this as a serious omission.

As regards treatment, no great encouragement is to be found. "I have never met with a case," he says, "in which

I could feel sure that the administration of remedies had really produced a cure;" but continues, "I am at the present time engaged in experiments on the action of various agents, and hope to be successful in my search for an effectual remedy for the disorder."

To every physician who has to advise patients suffering from this complaint, this book affords innumerable useful hints, and to all at the present day when germ-theories and disease-causation are such popular subjects, these original observations and experiments concerning this ill-understood disease will be found to contain much that is interesting and instructive.

Archives of Ophthalmology and Otology.

We have been favoured by Messrs. Wm. Wood & Co., of New York, with the July number of the Archives of Ophthalmology and Otology, which has been changed from a semi-annual to a quarterly Journal. This is the first Number of Vol. IV, and in every way sustains the reputation which the Journal has hitherto enjoyed. The ophthalmological part of the book is well and carefully written, and contains several interesting papers and clinical cases, among others are a case of retinal glioma, and also several cases in which tenotomy of the superior and inferior recti has been resorted to with good results. There is also a description of a new ophthalmoscope, with a single disc, invented by Dr. Knapp of New York.

The otological department is, to our mind, the best part of this number of the Journal, and contains several translations from the German. Among these is a translation of an article by Dr. Wreden of St. Petersburgh, on the Myringomycosis Aspergillina. We here have a most interesting account of this aural fungus, and the symptoms to which it gives rise, this is followed by a case of Myringomycosis Aspergillina contributed by Dr. Charles Burnett, the translator of Dr. Wreden's paper.

The book finishes with an Otological and Ophthalmological review, and at the end are some excellent plates illustrative of various papers in the Journal. The number before us is very well printed in excellent type on good substantial paper, and the "Archives" will, we hope, be a decided success as a quarterly Journal. We should mention that the subscription has been reduced from seven to five dollars per annum, and we may safely say to any intending subscriber that it will be money well spent.

The Cerebral Convolutions of man, represented by original observations, especially upon their development in the Fœtus.—Intended for the use of Physicians. By ALEXANDER ECKER, Professor of Anatomy, and Comparative Anatomy, in the University of Freiburg, Baden. Translated by ROBT. T. EDES, M.D., New York, D. APPLETON & Co., 8vo. pp. 84.

This is an anatomical manual, consisting entirely of accurate descriptions of all the lobes and convolutions into which a normal brain is constantly divided. It is insisted by the author, that for all persons who attempt to record observations in cases of cerebral disease, it is very necessary to have some such topography as would enable them to describe accurately the exact situation of any given lesion. Thus in a purely scientific way the knowledge of some such system of nomenclature would no doubt facilitate work and also render such observations more valuable. But it would be idle to expect that the busy, general practitioner should be willing to expend the time necessary for the study of the name and relations of every separate convolution in the brain.

It displays, however, the great pains that have been betowed upon its preparation. It is illustrated with several good diagrams, and is a complete index of the matter of which it treats.

Periscopic Department.

On the Concentration and Sanitary Regulation of the Business of Slaughtering in Cities. By Stephen Smith, M.D.

(Read before the Public Health Association of New York, June 11th, 1874.)

One of the first questions which sanitary authorities, newly organized in our cities, have to meet and answer is :— "How can the nuisance created by the ordinary slaughter-house be most effectually abated?" The conclusion which is generally reached is, that a stringent ordinance will remedy the evil, and accordingly, the opinions and purposes of the Health Authorities are embodied in the form of an ordinance, somewhat as follows :

"That every butcher, leasing or occupying any place, room, or building where any cattle have been, or are killed or dressed, or where any cattle may be kept, and, having power and authority so to do, shall cause such place, room, building, stall and their yards and appurtenances to be thoroughly cleansed and purified, and all offal, blood, fat, garbage, refuse, and unwholesome or offensive matter to be therefrom removed, at least once in every twenty-four hours; and shall, also, at all times, keep all wood-work, save floors and counters, in any building, place, or premises aforesaid, thoroughly painted or whitewashed."

But it is found by painful experience that in spite of this declaration the nuisance continues ; that, in fact, this carefully worded and high-sounding ordinance proves to be but a tuft of grass thrown at the offenders. It is resolved next to enforce this ordinance by prosecution, or arrest, or by both methods. These proceedings possibly secure *more* care on the part of the butcher, but they do not in any proper sense abate the nuisance. During certain portions of the day the yards are covered with liquid ordure, the walls are bespattered with filth, the drains are choked with refuse matters ; and however thorough the cleansing may be, the walls, floors and areas become so saturated that during the remaining portion of the twenty-four hours the whole establishment reeks with foul odors in the summer sun.

After a protracted struggle with this nuisance, stimulated by public censure, it will prove a fortunate circumstance if the health authorities reconsider their action, and adopt a policy more in accordance with the dictates of good sense and of wise sanitary administration.

The slaughter-houses of any city must be placed on the same basis as the markets, so nearly are they related to the public health. The business has always been recognized as offensive, and on that account amenable to municipal regulations. But there is a far more important sense in which they should be regarded as subject to special control, viz.: as the medium of food-supply to the people. Considered in their two-fold influence upon the public health, *first*, as sources of filth, and *second*, as liable to furnish impure meats, health authorities should exercise the most rigid supervision in regard to the details of their management. How can such supervision be most advantageously exercised? We answer:—by the concentration of the business in well-appointed abattoirs. These establishments should be so located, constructed and conducted as to secure the utmost degree of cleanliness, and the most direct and complete oversight by sanitary officers. We may thus state the advantages of concentration:—

1. *Facilities would be afforded for the thorough inspection of cattle and meats.* It is of the first importance as a sanitary measure that there should be ample facilities for the intelligent inspection of the cattle to be slaughtered, and of the meats to be exposed for sale in the markets.

The temptation to slaughter diseased cattle in large cities is very great, and the opportunities offered are abundant when the business is entirely unregulated, and free from the surveillance of competent sanitary officers. In every city where no restrictions upon the trade exist, there is a class of men who deal in diseased cattle and meats. In the cattle yards they purchase the sick, lame, or injured stock, and in the markets they select the rejected meats, and then retail this unwholesome refuse of the slaughter-house to the poor.

To guard the people against the imposition of diseased meats, the best regulated foreign cities require the careful inspection by expert officers of every animal brought to market. All obviously diseased cattle are sent to the offal yards, and the suspected are detained in yards or stalls for observation. All the meats offered for sale in the public markets must have a previous inspection. In this manner the people are protected from even the liability of receiving unwholesome meats.

But no sanitary inspection worthy of the slightest confidence can be maintained over the meat supply of our markets while the present scattered, unregulated, and practically unlicensed system of slaughtering is continued. Cattle suffering any and every form of disease may pass unnoticed and unchallenged to any of the slaughter-houses, and the carcass may go thence to the market without hindrance.

The only practicable and indeed possible method of instituting an adequate system of cattle and meat inspection is the concentration of the business in large and well-regulated abattoirs. The very incorporation of butchers in such companies, leads to the expulsion from the business of those irresponsible dealers who live by a sort of contraband trade. But the great sanitary feature of the proposed regulation is the rigid inspection of cattle and meats which may be so successfully carried out.

2. *Abattoirs properly conducted, tend to the purity and preservation of meats.*

Fresh meats afford, during the warm summer months of the year, a fertile soil for the development of the germs which arise from decaying or decomposing matter, vegetable and animal. The germs are of course, the most abundant where there is the largest amount of organic matter. When implanted on fresh meat, at a proper temperature, they at once begin to develop, and the meat undergoes putrefactive changes. In certain localities, meats cannot be preserved in the summer, except on ice, for even an hour. And it is

susceptible of demonstration that meat slaughtered in filthy stalls and exposed to the emanations of unclean yards, areas, drains, etc., quickly takes on putrefaction. If we add to this exposure the filth of the slaughter-houses, the additional exposure to the filth of the street, as the cart is driven to market by the butcher, we have the best conditions that could be devised for furnishing the people of any city with unwholesome meats. That such a meat supply is detrimental to the health of the people, there is no doubt. The effect of inoculating a wound, as a cut on the lip, with meat in this stage of putrefaction, is most dangerous, often resulting in violent inflamation and speedy death.

But in the abattoir, we have these conditions changed. All is scrupulously clean; the air is untainted by decomposing organic matter of any kind; the meats are hung up in a cool dry atmosphere.

3. *The large surface area occupied by the business would be diminished to the least practicable space, and the entire territory occupied could be preserved in a much greater state of cleanliness than that of any one of the single establishments now in use.*

It has been taken for granted by some people that if all the slaughter-houses should be concentrated in one establishment, this single establishment will become as many times more offensive as there are slaughter-houses so concentrated. This view is not only absurd, but practically the reverse is true. If, for the loosely paved yards, the imperfectly drained areas, the absorbent floors, etc., of existing slaughter-houses, widely scattered, we can substitute a single yard with impervious bottom, susceptible of being thoroughly flushed at all times with water—a building with non-absorbent floors, and equally capable of rapid and thorough cleansing, it is apparent that large and filthy areas now reeking with ordure in the summer's sun, and floors saturated with animal matters, would be entirely removed, and the substitute would be a single limited area, at all times

kept thoroughly clean, and buildings free from contamination.

4. *Concentration of slaughtering will abate the nuisance of fat-melting, hide-curing, gut-cleaning, and other offensive kinds of work growing out of the business.*

Not the least of the evils arising from the maintenance of numerous slaughter-houses, are those kinds of offensive business, like fat-melting, which are its adjuncts. These trades are carried on by independent operators on their own premises, and always in a most slovenly and negligent manner. The butcher is likely to retain his fat until it becomes putrid, and then it is carried through the streets to the dilapidated fat-melting house where it is rendered with imperfect apparatus; the hides are cured by another small and irresponsible dealer in any old building which he can secure; the entrails, in a state of active putrefaction, are taken by still another dealer through the city to any dilapidated rear building where the workmen can be concealed, and there they are manipulated for days together.

It is frequently urged by those opposed to the abattoir system that there is not sufficient available space in cities for the proper management of the business if it is concentrated. This question has been practically studied recently by Mr. Carl Pfeiffer, sanitary architect with reference to the concentration of the slaughter-houses of New York. From the data which he gives the necessary calculations can be readily made as to the space required for the business of any town. He concludes as follows:

"The space usually allotted to a butcher in most of the slaughter-houses of this city, for killing and hanging cattle, is called a baulk, and occupies a floor space of 10x50 feet, exclusive of yard-room for the temporary storing of the live cattle; for the latter purpose additional space of 15 or 20 square feet is allowed for each animal. One set of butchers in the smaller establishment usually kill and prepare ready for market on an average 25 beeves per day; to kill and dress one bullock ready for market requires 20 to 30 minutes.

A space of fifteen feet in width affords ample room for two baulks, and making each baulk 60 feet deep, would give slaughtering and hanging room for 40 cattle per day; add to this a space of 15x40 feet to be used for a pen, in which the cattle are placed previous to being slaughtered, would give room for 40 to 50 cattle. The space usually allowed for this purpose I have found to be from 11 to 15 square feet for each animal. It appears then that in a space of 15x100 feet ample room is afforded for slaughtering, hanging, and yarding 40 cattle. A block of ground 200x400 feet would afford facilities for slaughtering, hanging, and the necessary pen or yard space of 4,000 cattle per day, or nearly three times the capacity that is required by the butchers of this city during any day for the past year.

At the slaughter-house of the Central Stock Yard and Transit Co., at Jersey City, I found that a space of 15 by 80 feet was required for yarding, slaughtering, and hanging 50 cattle per day. The same company in a space of 300 by 400 feet, afford accommodation for the reception, feeding and watering of 20,000, and the slaughtering and hanging of 5,000 sheep, so that it is safe to assume that in a space of 200 by 300 feet 5,000 sheep can be daily yarded, slaughtered, and hung up, which is more than is required by all of our butchers in this line of business. During the past year the daily average of sheep-slaughtering in this city has been 3,300, so that in the same space sufficient room would be left to do all slaughtering of calves required. This the sheep and calf slaughtering, is mostly done in the second stories. For hog-slaughtering a space of 1,312 square feet is required for a tub and bench for one set of slaughterers, and 2½ square feet of hanging room for one hog; if the baulks for hogs are made in double tiers, one above the other, then two hogs can be placed in a floor space of 2½ square feet. One set of hog-slaughterers usually kill and dress 200 hogs per hour, and, five hours being their working time, one set of men deliver 1,000 hogs per day, or one-fourth of the number of the entire daily supply furnished by all the

butchers. Assuming then a ground space of 200x350 feet for a hog slaughtering-house two stories in height, the upper floor to be used for yarding and killing, the lower for dressing, weighing and hanging; the upper floor containing 70,000 square feet, and each hog requiring less than 7 square feet, there would be room for more than 10,000 hogs. Assuming the lower floor to have a central space of 60 by 350 feet, room would be afforded in this for 16 tubs and benches, and 16 set of slaughterers. On each side of this central space would be 70 by 350 feet of hanging room, capable of having 400 baulks; each baulk being 70 feet deep, would afford hanging room for 42 hogs, and the 400 baulks would hold 16,800 hogs, or more than four times as much as required by all the hog-slaughterers of New York.

The above demonstrates that all the slaughtering of cattle, sheep, and calves required by the slaughterers of New York can be done in a building 300 x 400 feet, and the hog-slaughtering in a building of 200 x 300 feet. These buildings could have basements where there would be ample room for the salting of the hides and collecting all offal. A building of 100x100 feet, 3 stories in height, and a basement fitted up with the most approved apparatus would be sufficiently large to admit of the fat-melting and rendering being done for all of the slaughterers' offals. In addition to the meat supplied by the New York butchers, the Central Stock Yard Co., slaughtered at their abattoir at Jersey City for the New York market during the past year, 200,000 cattle, 300,000 sheep, and 600,000, hogs, and from personal observation and survey I have found that this abattoir is worked to less than one-half of its capacity, and could do all the slaughtering to supply the demands of the New York, Brooklyn and Jersey City markets.

The abattoir also demonstrates that in a large establishment the slaughtering is more readily supervised, and the whole business done more systematically and more cleanly; in fact, so cleanly that nothing offensive is perceptible, owing to the superior sanitary precautions that have been taken in

the construction and the constant enforcement of proper regulations, which experience has proved almost impossible to enforce in a large number of small establishments scattered over a great part of the city."

In the light of the preceding discussion we can but conclude that the interests of the public health demand that the business of slaughtering in all our American cities should be concentrated at the most available point for cleanliness and economical management, in one or more abattoirs according to the necessities of the trade. The common slaughter-house is a nuisance against the public health (and public morality) which should be abated wherever it exists. —*The Sanitarian.*

Practical Notes on Cutaneous Subjects. By TILBURY FOX, M.D., LONDON, F.R.C.P., Physician to the Department for Skin Diseases in University College Hospital.

IX—SYPHILITIC TUBERCLES ABOUT THE NOSE.

I have seen strange mistakes, made in regard to the nature of specific indurations or tubercular formations about the nose. The occurrence of syphilitic inflammation or infiltrations in circumscribed spots about the nose, constituting the sole syphilitic cutaneous manifestation present, is not uncommon. The favourite seat of these infiltrations is the hollow formed by the junction of the ala of the nose with the cheek. These formations may be as small as, and even smaller than, a split pea, or as large as an almond or larger. There may be one or several. Generally speaking there are one or two packed together. In some cases the nose about its tip or side, or in both situations, appears enlarged from excess of tissue; whilst it is at the same time redder and hotter than usual, and distinctly indurated to the touch. More rarely the general enlargement of the nose is excessive. The tubercles, or the more general enlargement, may be the seat of ulceration or crusting.

No such condition as the last described could be the result of simple inflammation. The syphilitic disease begins and progresses slowly and indolently ; and the enlargement is due to the formation of a fleshy-like mass, firm and reddish —a neoplasm in fact. The neoplasm in the form of a tubercle or a more diffused infiltration is firm, not very vascular ; it *tends* to crust freely and to ulcerate—characters that bespeak its syphilitic nature. The lupus neoplasm is softer, more vascular, gelatinous-looking, and, if small, does not crust, except in strumous subjects, but is covered by thin scales, which are closely adherent ; and, further, the tubercles are not multiform, save but very rarely. But the diagnosis is further set at rest by the discovering of some concomitant syphilitic lesion of the throat or the tongue, by the presence of nocturnal bony pains, &c., although there may be no additional evidence of skin syphilis.

These syphilitic tubercles are often taken to be acne indurata spots ; but they have none of the characters of an inflamed sebaceous gland, and especially no central aperture indicative of the follicular opening ; they are primarily solid (new) formations, and they tend to ulcerate and leave pits behind on their disappearance, unlike ordinary acne spots. I have seen many cases of these syphilitic tubercles or slight infiltrations about the nose which have been treated for a long time without any benefit because their nature was not recognized ; but if the fact of the disease beginning as a new formation be attended to, the observer will be at once put upon his guard against error, and many a patient will be saved from ugly ulceration and deformity of the ala of his nose by timely treatment.

X.—UNCONSCIOUS SCRATCHING.

I am convinced that sufficient attention is not paid to the evil effects of scratching upon skin diseases which are accompanied by pruritus, and especially by such as may be termed unconscious scratching—i.e., that which is practised

during the night. To the case of old people suffering from pruriginous affections these remarks particularly apply. I was recently consulted by a gentleman in his fifty-eighth year, who had been greatly distressed and worried by an attack of cutaneous pruritus, for which he had failed to get relief, and which he aggravated greatly by savagely excoriating the skin with the nails, thereby inducing a crop of what is known as pruriginous papules (inflamed follicles and papillæ in a state of excoriation) The cause of his malady was over-work and want of fresh air no doubt; this, however, is not the point I want to notice, but the effect of scratching during sleep practised perfectly unconsciously upon himself. He told me that his mornings were miserable on account of the burning and soreness he felt in his skin. He imagined that he had exacerbations of his disease in the mornings; but I observed that each morning the skin appeared to be more than usually excoriated, and on requesting his wife to watch his doings at night, it appeared that he was in the habit of almost continuously scratching himself in various parts of the body when in sound sleep. He had no idea that he habitually so scratched his skin; but attributed the ill effects of the scratching to an aggravation, natural as it were, of the disease. The disease in his case was speedily cured, though it had lasted some time, by anointing the body with simple oil, and tying the hands in gloves, so that the nails could inflict no injury upon the skin when he was not watched in the night. The case illustrates the importance of attending to "little matters" in the treatment of skin diseases, and especially in regard to scratching.

XI—SYPHILITIC PEMPHIGUS IN AN ADULT.

As instances of syphilitic pemphigus are "few and far between" in private practice, the narration of the following case, which came under my observation in March, 1873, will be followed with interest.

The patient was a gentleman aged twenty-five, sent to

me by his medical man from the country. He informed me that he had "had a great deal of worry and trouble of late," and had suffered much from "migrain." The disease for which I was immediately consulted attacked him first in October, 1870, about the hands and feet, and the interior of the mouth was so badly affected that he "could not eat anything," and the patient added that "the throat was awfully bad." He had been attacked by seven outbreaks in all, including the one I saw. The outbreaks kept him in bed for a fortnight, and left him in a very weak and depressed condition. When any outbreak was severe, the patient suffered from intense headache, during its height for about twenty-four hours. He had been subject to neuralgic pains, and occasionally to rheumatic pains. He had been very low-spirited. The body had never been attacked by the eruption: the penis, however, had suffered of late.

The last attack began on March 6th by a little speck on the centre of each hand, the patient being very low and weak. The lip became sore on its outside and "broken." On March 8th another spot appeared on the thumb. On the 11th other spots had appeared about the fingers, and the first which came had assumed the aspect of little bullæ; the gums had also become tender, and the spots on the 14th had reached the size of a large split-pea. On the 15th the patient felt so weak that he had to go to bed; the throat got very sore and the bullæ filled with bloody fluid and looked like black grapes. The feet now became affected. On March 20th the patient was still in bed; headache came on and lasted all day, and the man suffered from great pain in the limbs and febrile disturbance. He got up on the 24th of March (eighteenth day of disease) for the first time since he took to bed. When I saw the patient on March 28th—that is, the twenty second day of the attack—there were about sixteen bullæ on each hand, of various sizes and different stages of evolution, some being much indurated at their bases and some freely coated over; and about ten

on each foot. The patient's tongue exhibited white patches and fissures on the sides, and there was also evidence of syphilitic ulceration about the throat on each side. His wife was confined of her first child in February, five weeks before her expected time, and the child only lived two days.

Remarks—I base my diagnosis of syphilis upon the general state of the patient, which showed that he was to some extent cachectic ; upon the frequency of the attacks of headache ; the occurrence of rheumatic and neuralgic pains, especially about the head ; the evidence of syphilitic mischief in the throat and about the tongue ; the seat of the bullous eruption—viz., the soles of the feet and the palms of the hands ; the indolent character of the eruption—viz., the slow development of the bullæ, their tardy progress, the presence of sanious contents, and particularly the induration left behind by them ; upon the premature confinement of the wife with what was practically a still-born child ; and lastly, the effect of anti-syphilitic treatment in relieving the patient.—*Lancet.*

The Internal Administration of Phosphorus.

The difficulty of finding an appropriate vehicle for phosphorus in its medicinal uses has long been recognized. Balsam of tolu has lately been suggested for this purpose. Experiment has shown that four grains of phosphorus are perfectly dissolved by ninety-six grains of washed tolu, if melted together under water and well stirred.

The preparation so made, when examined microscopically, does not show any particles of undissolved phosphorus, and when seen in the dark, and rubbed between the fingers, it gives off a perfectly equally distributed light.

This preparation may, therefore, be formed into pills, with every confidence in the equal distribution and activity of the phosphorus.—*Medical and Surgical Reporter.*

Turning after Craniotomy. *By* S. WORDSWORTH POOLE, *M.D. Aberd., L.R.C.S.E.*

A Case like the following is happily uncommon in the practice of a country surgeon, as an experience of above 3000 assures me, and its perusal may afford some useful lessons to those who are not yet perfect in the obstetric art.

On the 10th of April last I was called to see a very diminutive person in the ninth month of pregnancy, a primipara, and thirty-two years of age. There were present slight pains, and a sanious discharge, but the os was impervious to a catheter, the cervix being small, with merely a depression in its centre. The brim of the pelvis was blocked up by an unyielding bony mass, simulating the fœtal head as it might lie when firmly impacted. The diagnostic difference was this, that it was continuous with the coccyx and sacrum. This discovery led to an examination of the spine, which was found to be deeply incurvated below the loins. The legs were found to be greatly deformed, the tibiæ being enlarged and bowed inwards. Yet the husband was ignorant of the distortion of the figure, and it was not till some days after her death that he told me he remembered that she always took care, when dressing and undressing, to have her limbs concealed from his view.

On the 12th the nurse showed me veritable brain-matter escaping from the os, which, however, was not open enough to admit the point of the forefinger. The pains were still very slight and infrequent; the pulse was good, and the mind cheerful, and so I deemed it prudent not to make incisions and bring on delivery until I saw what could be effected by nature through powerful uterine efforts. These supervened on the 14th, and about six hours after I attended her, and found the os large enough to admit one finger, and just within it was a piece of jagged bone, evidently part of the cranium. The promontory of the sacrum was very close to the pubis, not an inch and a half apart, but the outlet was roomy enough. As the history was clearly that

of rickets, not osteomalacia, I could not hope for any yielding of the bones, and anticipated the worst result.

The woman was put under chloroform, and the delivery at once proceeded with. Barnes's bags, so often useful, were here out of the question, as the head would have prevented their insertion, at any rate their retention ; so with a hernia knife I made three incisions, and extricated the presenting bone, twisting it off with the fingers. The craniotomy forceps were then fixed, and the crochet was passed inside the cranium and made fast to a distant point, and by drawing on the two simultaneously the head was pulled down as far as possible, but the scalp constantly gave way, and the bones had to be twisted and removed in fragments, chiefly by the fingers.

After an hour and a half the whole cranium was delivered, and operations were delayed to give both patient and attendants a rest.

As it seemed a very uncertain undertaking to fix a blunt hook in the axilla, and thus drag down the trunk, I passed the left hand, as being the smaller, slowly through the os and brim, and attempted to grasp a foot, employing external version at the same time. Though my hand is small, it was impossible to rotate the wrist, which was painfully gripped between the sacrum and pubis, and a foot could not be seized. I then introduced the right hand and caught one foot, which was drawn through the outlet, and the blunt hook fixed over the opposite groin, after which the delivery was tolerably easy. The state of the fœtus may be judged of from the fact that, on moderate traction on the thighs, the skin gave way and became completely inverted over the foot.

The placenta was firmly adherent, and for a third time the unfortunate creature had to be subjected to the introduction of the hand. She suffered no pain, however, being completely anæsthetised for three hours. The uterus contracted well, and there was not the slightest hæmorrhage. For forty-eight hours after delivery the pulse remained at

120, and then fell to 100, and the urine kept constantly dribbling away. There seemed some chance of recovery until the fourth day, when tympanites and vomiting set in, and the patient rapidly sank. On examining the vagina there was found a good deal of sloughing.

Though I do not reproach myself for the fatal termination of this case, it is pretty clear that a better chance would have been afforded had the fœtus been turned before extracting the skull; indeed, it seems evident to me that but for one great risk—namely, the giving way of the neck, and consequent leaving the head in the womb, this method would be best after craniotomy in all cases where version was possible. In the above instance it would have answered, though the risk would have been considerable from the decayed condition of the fœtal muscles and ligaments.

As a country surgeon is not often able to make public his opinions, I take this opportunity of expressing mine on the question of craniotomy *versus* the induction of premature labour, which is always causing some discussion, though I am at a loss to comprehend how any educated man in his right mind can take the side of the former. I conceive my experience of both sufficient to warrant me in stating that the latter is quite as safe for the mother as the former, and that an accoucheur who deliberately neglects to induce labour at or about the seventh month, knowing that the only alternative is perforating the skull, is guilty of infanticide.

It does not very frequently happen that a patient's estimation of the advantages of the operation can be so markedly expressed as in the following case, which was published in *The Lancet* some four years ago. A woman having a pelvis two inches and a half in the antero-posterior diameter had been delivered of six still-born children, some by version, some by forceps, some by craniotomy. I induced labour at six months and a half. The child was born alive, and lived for three years. The mother emigrated to America, where

she was delivered again at the ninth month of a dead child, to her own great risk, and she is now on her way home to undergo the same proceeding which resulted so happily for her before.

With one other remark I shall conclude. I have found chloroform to be the best if not the only preventive of laceration of the perineum so common in primiparæ over twenty-five, whether the forceps are employed or not.—Sidcup, Kent. *The Lancet.*

On Strapping the Chest in Phthisis. By JOHN MCCREA, M.A., M.D., Medical Officer to the Belfast Dispensary.

The treatment of phthisis by restraining chest-movement deserves more attention than it has yet received. Partly for this reason, and partly to describe the appliance which I have latterly found most effective, I wish again to direct inquiry to the subject.

In the large number of cases which have come before me in the practice of the Belfast Dispensary, I have seen no remedy equal strapping the chest in efficiency and general applicability. At the same time the use of other remedies is not interfered with. The plasters used in strapping are quite able to bear the strain of walking and talking, so that gentle exercise and conversation are not forbidden; and, indeed, I have seen both rendered enjoyable where they had previously been irksome. I have not met with a case in any stage of the disease in which there was ground for attributing any bad result to the restraint of the chest. I say this because a paper on the subject threatened grave consequences if cases were not most thoughtfully selected after an exact measurement of the proportion of lung involved. An extensive trial has convinced me that this dread is a dream and this refinement finical.

Since writing a paper which appeared in the November number of the *Dublin Journal of Medical Science*, I have made an improvement in the apparatus, which diminishes

the frequency of the renewal of the plasters and strengthens their grip. The following description contemplates their application to the upper part of the chest. I have principally used emplastrum roborans spread on swan's-down. The sheet, which is half a yard wide, is to be cut into transverse strips. Each strip is eighteen inches long; the breadth should be about three-quarters of an inch. The plasters should be only very slightly heated. The first strip runs up the back in the space between the spinal column and the posterior body of the scapula on the affected side, its starting-point being well below the level of the inferior angle of the scapula. It is to be applied gradually and deliberately, every portion being well rubbed in before the next portion is brought into contact with the skin. It is to be carried over the shoulder and down the front of the chest. In rounding the shoulder it is to be pulled tight and held so while it is being, bit by bit, brought into contact with the front of the chest, the chest just at this period being in the act of strong expiration. The next strip, which is horizontal, commences at the spine, crosses the posterior end of the first strip, passes under the axilla and on towards the sternum. It also is to be applied deliberately and with friction; as it is rounding the chest it is to be pulled tight, the patient at the same time making a forced expiration. Other strips are to be applied in a similar manner, vertically and horizontally time about, until it is judged that a proper grasp of the chest has been obtained. I avoid the scapula as much as possible, Some of the horizontal strips should cross the sternum, and some the spine. A large rectangular piece of plaster should now be applied, occupying the inter scapular space and reaching down to the last dorsal spine. Another squarish piece is to cover the front and upper part of the chest between the clavicles and mammæ. These, if smoothly applied, secure the ends of the strips from ruffling up, and give additional *points d'appui* Finally, the whole is to be well rubbed in all over. The patient is to sit quiet for a few minutes before dressing. The plaster

soils the fingers, which, however, may be easily cleaned by rubbing with coarse paper and washing with a few drops of ether. The length of strip required of course depends upon the size of the chest and the extent of the disease. I always endeavour to control more of the lung than the portion apparently diseased. I have found it generally suitable to cut the plaster as above described. If too long, that may be easily remedied with scissors as each strip is applied. If too short—if, for instance, a vertical plaster beginning on the back does not reach sufficiently far down the front of the chest, let the next vertical plaster commence its course in front and at a sufficiently low point, and then be made to cover the former. This, besides, increases the rigidity of the apparatus, and rigidity undoubtedly is one source of its power.

In a fortnight a reapplication will probably be required. This will give a good opportnnity for a careful examination of the condition of the lung. While the plasters are still on the indications of the thermometer will be most valuable. If there be an exacerbation of the symptoms, particularly of the cough, dyspnœa, or pain, if the temperature rise, or if the plasters be obviously slack, apply new ones. In an advanced case of phthisis in a girl, the girl's mother told me that she herself could tell the proper time for renewal by observing the cough become distressing at night; and, indeed, it is common for patients to ask for a reapplication. This illustrates, besides, the confidence felt in the plasters by those who have had experience of their effects. In early phthisis it is necessary to warn the patients not to mistake the amelioration of their symtoms for recovery; they should always be directed to come back. Possibly when they consider themselves quite well the thermometer or the stethoscope will indicate differently. These are the cases in which, by reapplications, repeated reapplications if necessary, we may hope for the most brilliant results.

In the paper already referred to I have related a few cases, selected with the aim of illustrating the effects of

this line of treatment in different stages of the disease. We obtain immediate and marked diminution of the cough, cessation of pain, relief of dyspnœa, and reduction of temperature; and the patient usually expresses at once a feeling of great comfort. In short, I am so satisfied with the results of the numerous cases in which I have tried this method that I give it the first place among all the remedies for phthisis.

Papers on the subject—Berkart on "Rest," &c., THE LANCET, Oct. 18th, 1873; a letter from myself in the following number of the same journal; my paper in the *Dublin Medical Journal*, Nov., 1873; Dobell on the "Importance and Dangers of Rest in Pulmonary Consumption," in the *British Medical Journal*, Nov. 22nd, 1873.—*The Lancet.*

The treatment of Corns and Bunions.

In a lecture reported in the *Medical Press and Circular*, Mr. Ormsby, F.R.C.S., said on this subject:—

The treatment of these two affections agrees very much in at once removing the tight boots and undue pressure, and soft pliable leather shoes recommended, applying simple cold-water dressings to the painful bunion; in the inflammatory stage, if suppuration occurs in its cavity, it should be cut into by early incision. To prevent undue pressure various methods have been suggested from time to time; a round piece of leather or condensed piece of wool having an adhesive side next the skin, and a round hole cut out of its centre to receive the corn or bunion, and this then applied round the periphery of the swelling; this, no doubt, is a very useful plan, but act, as it may do, most efficaciously for a time, it is only palliative, and does not effect a permanent cure. The topical application of nitrate of silver produces a hardened black portion of epidermis over its summit; this, after a time, gets detached, and you can peel it off, and when this is removed touch it again with the nitrate

of silver, and so on until all traces of the callosity disappear. I have over and over again tried this plan, and it has seldom failed in my hands, but it must be persisted in. Chiropodists, a class of people who think themselves very clever, profess to take a "corn out by the roots," a most unscientific observation, to say the least of it, and in reality all they do is, by a patient and gentle paring process, remove a great part of the thickened cuticle, and recommend a well-fitting boot, and simply by removing the cause it often effects a cure. You must also bear in mind that a very loose boot is nearly as bad as a very tight one. Glacial acetic acid is also recommended to be applied after the callosity has been well softened by keeping the feet in warm water for a short time. When the callosity occurs in the sole of the foot and a circumscribed enlargement is seen, if directions are given to a bootmaker, he can make an allowance in the sole and form a slight depression, so as to prevent undue pressure to the foot; in fact, boots of any dimensions and shape can be made by an intelligent bootmaker to suit any deformity occurring in the toes or feet. Well-made boots prevent much annoyance and deformity, while badly-made and ill adapted boots are a very frequent cause of deformity, corns, bunions, limping, etc. Another distortion often seen is what is called *Hammer-Toe;* it is caused generally by wearing boots of insufficient length, and the toes are bent up and considerably flexed to accommodate themselves to their cramped position; after a time the flexor tendons become permanently contracted, and the toes assume a form not unlike the appearance of a hammer, hence the name; the great, second, and last toes are most often affected.

Treatment.—To recommend longer boots, and allow the toes space to travel forward. Tenotomy of the contracted flexor tendons may be resorted to, and a spring-pad attached to a sole of leather or other light material, and the toes bent forcibly down and bandaged to this sole, which may have slits in it corresponding to the interdigital spaces, which facilitate the bandage passing between the toes and keep them permanently extended.—*Medical and Surgical Reporter.*

Varicella and Variola.

The relationship of these two complaints was discussed by a correspondent of this journal some months back. Professor Henoch, of Berlin, in a paper recently published in the *Klinische Wochenschrift*, argues strongly in favor of their radical diversity. He says:—

"It is not singularities that settle the matter here, not the circumstances that individual vesicles of varicella have a central depression, and that their contents may become purulent. Taken altogether, the differences are always so marked, that, to me, a perfect separation of varicella from the variola group seems indispensable. Compare the exception of scarlatina, which in almost all cases commences as a diffuse erythema, but, under very severe cutaneous inflamation, is often enough mixed with papules or with vesicles, which may even have puriform contents. In spite of this, the disease is still scarlet fever. Just in the same way I regard these exceptional cases of chicken-pox. Two cases came under my care in private practice, in circumstances which to me were decisive. Two sisters, both vaccinated, were ill with varicella at the same time; one had the disease in a severe form, having a strong fever, with severe headache, and the body thickly covered with vesicles, some of which underwent purulent change; the other had no constitutional symptoms of importance, and only a very few clear watery vesicles. In another family, a child three years old, who had been successfully vaccinated, was so severely ill that I should have been misled, had I not seen the eruption of clear vesicles. In a fortnight, the elder brother had a very mild attack of vesicular chicken-pox. The extension of the disease among the grown members of the family, or of the household, such as often occurs in variola, was not observed in one of these cases."

These views strike us as very just. All the exanthemata have these exceptional appearances.—*Medical and Surgical Reporter.*

CANADA

Medical and Surgical Journal.

MONTREAL, AUGUST, 1874.

VACCINATION EXTRAORDINARY.

The anti-vaccinationists, headed by the irrepressible Dr. Coderre, have just had a new sensation. There is in this city a certain Dr. Roy, of whose existence not many persons have been until recently aware. A short time ago he vaccinated an infant, and not being satisfied with the result wrote a letter to the great champion of non-vaccination, who accordingly found a mare's nest at once, and heralded the same to his confiding compatriots in a long communication to the *Minerve* newspaper. The facts are briefly as follows. On the 26th June an infant thirteen months old was vaccinated by Dr. Roy from lymph obtained from Dr. Larocque, one of the Health Officers. On the 27th, the child became extremely feverish and had severe diarrhœa. On the 9th July there was enlargement of the *inguinal* glands (which Dr. Roy tells us with the greatest *naîveté*, he mistook for an inguinal hernia !). At this time when the pustule had formed and was commencing to dry, he applied a firm bandage over the part, and subsequently on removing the bandage, was surprised to find the scab sticking to this and a rather nasty sore left behind. The description of this sore in the above-named paper must be taken *cum grano salis* as emanating from the excited imaginations of rabid opponents of the practice. Shortly after, the sore cicatrised and the child was well. But so much had been said about it, and such perniciously erroneous ideas were

likely to be entertained by the public concerning the bearing of these garbled facts as thus presented, that it was thought advisable to call together a committee of medical gentlemen of various shades of opinion, to hear the evidence and give an intelligent verdict concerning it. Accordingly, on the 2nd August the following gentlemen met at the parent's house to institute the necessary enquiry, viz: Drs. Larocque, Dugdale, Howard, Rottot, Ricard, Trenholme, Mount, Desrosiers, Lussier, Craik, together with Drs. Roy, Gauthier and Coderre. Having examined the child, and enquired into the case, the following resolution, which was moved by Dr. Howard, seconded by Dr. Mount, was adopted.—Resolved "That after having carefully examined the child of Widow Leblanc, said to have been seriously affected by the effects of vaccination, this assembly is of opinion that there has been no proof of such being the case."

Now this case, instead of being what the Coderre school have been trying to make the public believe it is—a terrible instance of the dire effects necessarily following upon this dangerous operation—is instead, simply an instance of the manner in which casual and coincident illness is readily by ignorant, or greedily by prejudiced persons, attributed to an antecedent circumstance with which this has no connection as a cause. The vaccination was performed at a time when diarrhœa—generally with more or less febrile reaction—was excessively prevalent amongst children in this city; these symptoms occured the *day after* the vaccination was performed, and yet we are asked to believe that these symptoms are to be referred to the entrance into the system of a morbid poison of some sort—Credat Judæus. Next we are told there was enlargement of the inguinal glands; now, the pustule being on the arm, how are we to believe that any deleterious agent from this point is to pass over the axillary glands, and fly to those so far remote? Besides, what sort of confidence can we place in the descriptions and observations of one who does not hesitate to tell us himself that for a whole day he was under

the impression that he was dealing with a hernia! Moreover, as a matter of fact, the child was admitted to have previously suffered from some inflammatory trouble about one knee-joint. Besides, as suggested by Dr. Howard, the profuse diarrhœa would almost certainly be accompanied by excoriation of the parts about the perineum; and this is recognised as a common cause of such adenoid swellings.

Dr. Roy appears to be a person content with an infinitesimal amount of personal experience to have enabled him to become an anti-vaccinationist for, according to his own statement he is individually utterly unacquainted with the practice. He says "Having for some time followed the animated discussion regarding vaccination I was longing for the day to come to prove the good or bad effects of vaccine." His devout aspirations were answered at last. An unfortunate infant was entrusted to him to vaccinate—happened to take ill the following day and lo! Dr. Roy has solved his problem and proved to his own entire satisfaction that vaccination is the arch-enemy of human life!

We should be only too glad if every case of this kind could be submitted to a tribunal of the same character. Then we should not find Dr. Coderre in a position to refer triumphantly by name to this one and that one and the other whom he boldly asserts have fallen victims to what he calls vaccine-poison, every one of which cases we have not the slightest doubt, if examined into by intelligent physicians, would have been traced to their true cause.

McGILL UNIVERSITY.

The following changes have recently been made in the teaching staff of the Medical Faculty of McGill University. Professor Drake has, owing to ill-health, been obliged to retire from the performance of the active duties of his responsible position as teacher of Institutes of Medicine. He will still, however, retain his Professorship. Dr. William Osler has, in consequence, been appointed by the

Faculty as Lecturer on Physiology and Pathology, and will begin his course at the opening of the session in October next. There can be no doubt that through the retirement of Professor Drake, the Faculty have lost one, who from the very commencement of his teachings, has proved himself to be a thorough master of the difficult and now complex subject treated of, and at the same time to be endowed with the gift not in the possession of every one, of imparting to others the knowledge acquired by oneself. We particularly regret to observe the cause assigned by Dr. Drake for his withdrawal, but we hope, and have every reason to believe, that by the increased rest he may thus enjoy, he will find his health completely restored. We must congratulate the Faculty upon the choice they have made of a successor. Dr. Osler graduated at this University with much credit to himself, and at that time the evidence he gave of previous devotion to original physiological research were such as to deserve and receive the highest encomiums from the Dean and Professors. Since then he has been unremittingly employed in the pursuit of physiological knowledge in the laboratory of Prof. Burdon-Sanderson, in Berlin, and in Vienna. We are certain, therefore, that Dr. Osler will be well-fitted to give instruction in every branch of recent Physiology.

Dr. Fuller, having resigned as Demonstrator of Anatomy, the position has been filled by the appointment of T. G. Roddick, M.D., late House Surgeon, Montreal General Hospital.

ENCYCLOPEDIA OF THE PRACTICE OF MEDICINE.

We have received an announcement of the intention on the part of William Wood & Co., of 27 Great Jones street, New York, to publish by subscription a translation from the German, of a work which is about to be issued from the press of that country. The work consists of a series of

independent treatises by a number of the most prominent clinical teachers in Germany. It is to consist of fifteen volumes, and, we should imagine, the names of the authors, many of whom are eminent in their speciality, will be sufficient to ensure the success of the undertaking. This certainly is an age of bookmaking, but works of this character can hardly be classed under such a heading. When we announce the names as contributors of Merkel, Traube, Rindfleisch, Kussmaul, Schroeder, &c., it should be sufficient guarantee of a work in every way in keeping with the very eminent positions held by these gentlemen in the scientific world. From the announcement it would appear to be a work on the same plan as that of Reynolds, or of Holmes' Surgery. Vol. 1, which is to embrace Public Hygiene, and diseases of special trades or professions, will be edited by Prof. Giegel and Drs. Hirt & Merkel.

Vol. 2, on Acute Infectious Diseases will be prepared by no less than 12 Medical Gentlemen, each man taking up and discussing a separate subject, and so on throughout the series of fifteen volumes.

We wish Messrs. Wood & Co., every success in their undertaking, and can only remark in conclusion that if carried out on the part of the authors with that spirit which their names would imply, it will be a most valuable addition to the literature on the subject. Messrs. Wood & Co., being desirous to publish the work by subscription, request the names of intending subscribers to be sent in to their address without delay.

We have received from Dr. Wheeler a specimen of his "Compound Elixir of Phosphates and Calisaya, a Chemical Food and Nutritive Tonic," prepared after the formula of Dr. Dusart of Paris. It contains Lactophosphate of Lime, Lactophosphate of Iron, Quinine, Quinidine, and Cinchonine, together with free Phosphoric Acid. It has an agreeable flavour, and cannot be objected to by the most delicate palate, and from its composition it will probably be useful in most cases where a Quinine and Iron Tonic is indicated. The addition of the Phosphates and Phosphoric Acid probably increase its value and efficacy as a nerve tonic and food. Altogether, this is the most satisfactory preparation of the kind, that we have hitherto met with.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS

Objections to some of the recent views upon the Pathology of Tubercle and Pulmonary Consumption, being the Address in Medicine read before the Canadian Medical Association, on the 5th August. By R. P. HOWARD, M.D., L.R.C.S.E., Professor of Theory and Practice of Medicine, McGill College.

Gentlemen of the Canadian Medical Association:

As you have generously left to my own choice the subject in medicine upon which I am to address you, I have selected one which because of its great importance and of the differences of opinion respecting it that exist among the leading minds of our profession, seems worthy of the occasion.

I ask your attention and indulgence while offering some observations upon the remarkable views that have been recently propounded upon the Pathology of Tubercle and Pulmonary Phthisis.

Perhaps the most startling pathological doctrine advanced in modern times on respectable authority is that miliary tubercle and so-called tuberculous infiltration are due to the absorption of the *caseous* detritus of the products of some pre-existing local disease as a pleurisy, pneumonia, scrofulous gland, diseased bone, abscess, fistula, etc.,—that tuberculosis is *either* an *absorption* disease nearly allied to pyæmia (Waldenburg) or a specific *infectious* disease like small pox (Burdon-Sanderson).

More or less closely connected with this new doctrine, but not necessarily arising out of it, is the old thesis revived in a modified form, and because of his able advo-

cacy of it, usually associated with Niemeyer's name, to the effect that the ordinary form of chronic phthisis pulmonum is of inflammatory origin and due to a so-called "caseous pneumonia," which may be induced by a *catarrhal* bronchitis or the local irritation of blood poured into the bronchial cells in pulmonary hemorrhage.

As these views are of overwhelming importance, in view of the practical consequences which must inevitably follow their establishment, I venture to raise some objections to them for the consideration of the members of this Association.

The *absorption* theory of tubercle rests mainly upon the interesting experiments initiated by Villemin in 1865 and subsequently confirmed and extended by Andrew Clarke, Burdon-Sanderson, Wilson Fox, Waldenburgh, Cohnheim, and others. These experiments revealed the important fact that in the Guinea pig, and in some other animals, the inoculation of tubercle, pus, putrid muscle, etc., of tubercle which had lain several months in alcohol, or had been submitted to the action of fuming nitric acid, or of carbolic acid, will produce *primary* lesions at the site of inoculation and *secondary* lesions in the internal organs, which appear to be identical with tubercle. Even the local irritation of a seton of cotton or of silver wire will produce similar effects in the Guinea pig.

Now, lest these inoculation experiments upon animals should be assumed to have proved more than they have—let it be borne in mind (1) that every animal has its own special organization and probably its own special aptitudes as regards diseased action; and (2) that it has yet to be shown that the inoculation of tubercle or other material is capable of producing lesions identical with tubercle in the several organs of the human body.

(3.) Clinical experience does not show that the irritation of setons or issues is causative of tuberculous disease in man.

(4.) Local suppuration when productive of secondary

remote lesions in various parts of the human body tends to develop pyæmia, with its peculiar metastatic deposits, or amyloid disease of the viscera—not, I believe, tuberculous disease. I regard this fact as strongly opposed to the inoculation doctrine. The very condition, chronic suppuration, as seen in necrosis, or caries for example, and which resembles so closely the action of a seton, is the very condition which is recognized as *the* cause of amyloid disease of the liver, spleen and other organs.

(5.) It is asserted that pleurisy and especially chronic pleurisy frequently causes consumption.

Now Dr. Blakiston watched for some years the course of 79 cases of chronic pleurisy with the following results — 10 were lost sight of — of 16 it was only known that they were living — and of the remaining 53 *not one* had become phthisical. Dr. Payne-Cotton's experience and Dr. Flint's is opposed to the view in question and coincide with Blakiston's. M. Aran and M. Siredey both contend that the autopsies of empyemic subjects show that tubercle is more frequently absent than one might expect.

Dr. A. Attimont's researches give 80 definite cures out of 130 cases of empyema, many of which moreover had been watched for a long time. And in 29 autopsies of empyema tubercles were absent 20 times and present only 9 times. If so many persons recovered perfectly from empyema, and if tubercle was found but 9 times in 29 cases, it certainly does not appear probable that empyema can be a very frequent cause of pulmonary tubercle.

When tubercle appears to have followed an empyema or a pleurisy, several explanations may reasonably be offered of the relationship: Tubercles may have existed in the lungs or pleura at the time of the invasion of the inflammation — or, as was admitted by Trousseau, a predisposition may have existed, which the local inflammation developed into actual disease.

(6.) If there are not sufficient grounds for asserting that the absorption of the products of pleurisy causes the

formation of tubercle, what about other local inflammatory affections?

Much importance cannot be reasonably attached to the statement of Troltsch, that purulent otitis not rarely precedes tuberculous meningitis, and even general tuberculosis, when we reflect how common an affection otorrhœa is in childhood.

(7.) It has been claimed that *fistula in ano* may initiate tubercle. But let it be noted that according to Pollock, and such has been my own experience, "the phthisis is the earliest affection," although it "occasionally happens that the fistula precedes all symptoms of consumption." Indeed, the same authority remarks that "in the larger proportion of cases it [the fistula] is found in the *third* stage, next to this in the second.

Now, if the absorption of corpuscular products from abscesses, ulcers, etc., may induce tuberculous disease, how comes it that a *fistula in ano* is, according to Pollock *never associated* with *acute* phthisis? the very variety in which the tubercle par excellence (miliary tubercle) of Virchow is present? And that the existence of anal fistula in chronic consumption appears to *prolong* the duration of the pulmonary disease, instead of causing it to extend and take an active course through the constant absorption of the inflammatory products?

(8.) Disease of the *bones* is regarded as one of the pathological conditions likely to produce tuberculous disease.

To show that disease of the bone is far from constantly or even frequently a cause of consumption, I would cite M. Coulon, who in 130 children suffering from scrofulous disease of bone found only three that had phthisis.

Mr. J. W. Hayward, writing upon another subject, gives some facts which appear to me corroborative of the view I am defending. "Of 85 consecutive cases admitted into the hospital for sick children for various tubercular affections, in only *one* was there any bone or joint disease."

"Of 134 cases of chronic bone or joint disease of which" he "took notes in the Hospital for Sick Children, in only 9 was there any sign of tuberculosis, and but 17 displayed other signs of scrofula."

Of 790 cases of *bone* and *joint* disease in adults and children admitted into St. George's Hospital, disease existed in other parts in 80 instances only, or in about ten per cent., and it may be safely assumed that the co-existing disease was not in every instance tuberculous.

(9.) There is one affection especially characterized by a tendency to caseous degeneration of the lymphatic glands which because of its frequency ought, if the absorption thereby be true, to be found very frequently associated with consumption. What are the facts?

Mr. B. Phillips taking enlarged glands with sinuous ulcerations and enlarged joints as diagnostic of scrofula, found scars resulting from scrofulous abcesses in only 7 out of 352 cases of phthisis. Dr. E. Smith, in 1000 cases of consumption, found that only 12.8 % (not 13 per cent.) had suffered from enlarged glands.

Of 1973 cases examined at Brompton Hospital for consumption only 3.8 % (not 4 per cent.) had scrofula.

Dr. Flint writes, "I have collected a number of cases in which young and middle aged persons presenting the characteristic cicatrices on the neck were free from tuberculous disease of the lungs; and on the other hand, it is extremely rare to find these cicatriees in persons who are affected with pulmonary tuberculosis." Such also is my own experience.

But the supporters of the doctrine that tubercle results from the absorption of caseous products rely also very much upon the fact that the able advocate of the theory, Fuhle, having carefully examined 23 cases of acute tuberculosis found *in all but one* or *two* masses of caseous matter, which he assumes to have *preceded* the tubercle.

In reply it may be urged that Wilson Fox has always found the histological elements of tubercle in the walls of

the air cells when caseation was present. That Dr. Schüppel, writing in 1872 upon tuberculous disease of the lymphatic glands, concluded that in all cases, caseous scrofulous glands are the seat of *true tubercles*, and that the caseation is due to the necrosis of the tubercle." That Dr. L. Thaon, writing in 1873, throws great doubt on the existence of any true cheesy inflammation independently of the tuberculous granulations, and concludes that cheesy inflammations are as much manifestations of tuberculosis as the grey granulations (miliary tubercles) themselves; a conclusion almost the same as that entertained by Wilson Fox. And that quite recently, Dr. Friedlander has stated that "though caseous deposits *are* found in *nearly* all cases of disseminated tuberculosis; *in some* a most careful examination has failed to detect them. And moreover, such deposits are so common that they are found in the bodies of 50 % of all adults who have died from any cause. And though the proportion of such deposits is much greater in cases of disseminated tuberculosis, it must be remembered that a very large number of these deposits are actually the *result* of local tuberculosis, all caseous glands for example; * * * * * * "and that we have quite as much right to consider that certain forms of local tuberculosis dispose, even after their relative healing, to the origination of disseminated tuberculosis, as to assume with Buhl that this is due to caseous infection."

Having in my own opinion, shown that the Absorption, theory of the production of tubercle suggestive by the inoculation experiments upon animals is not borne out by clinical experience, nor rendered probable by unanimity of opinion amongst histological authorities, I turn to the other doctrine that the ordinary form of chronic plumonary consumption is of inflammatory origin and due to pneumonia.

This is indeed a question beset with difficulties and upon which the ablest pathologists take sides, and I therefore claim your indulgence while venturing to speak upon the subject.

Most clinical physicians will admit, I doubt not, that ordinary acute (croupal) pneumonia in the great majority of cases runs a short course, its products are completely removed, and no ulterior damage follows. It is admitted that occasionally, though but rarely, this form of pneumonia induces abscess or even gangrene of the organ, but even then the disease can be distinguished from ordinary chronic phthisis.

But it is *catarrhal* pneumonia that the new school of pathologists, ably represented by Niemeyer, Waldenburg, Buhl, and others assert, originate and constitute the most frequent form of chronic consumption, and that miliary tubercle has nothing to do with it and is very frequently absent.

Now I submit that this question cannot in the present state of conflicting opinions and observations amongst histologists, besettled upon histological evidence. Need I remind you of the discordant views expressed by the able men who took part in the debate upon tubercle in the Pathological Society of London last year? The out-come of that discussion was, in my opinion, that the *microscope* does not enable us to distinguish tubercle from the products of lobular pneumonia and from other products which may closely resemble it. Nay, histologists are not agreed as to the histological characters of tubercle itself; and I have before mentioned that they differ as to the relationship existing between tubercle and caseous masses in the lungs; some contending that caseous material may exist without tubercle, but that tubercle results from the absorption of caseous products, — others that wherever caseous materials are present in the lungs tubercle coexists; and others, that caseous inflammations are as much manifestations of tuberculosis as miliary tubercle itself.

Histological evidence then being unsatisfactory we appeal to *clinical*.

After what has been said, it may be asserted with confidence, that in a given case unless the physical signs, the

symptoms, and the whole clinical history during life were those of catarrhal pneumonia, the existence of caseous masses in the lungs could not fairly be taken as proof that the disease was pneumoniac and not tuberculous.

Now the clinical features of catarrhal pneumonia differ from those of ordinary chronic phthisis.

Thus, (*a*) Rokitansky says that catarrhal pneumonia affects children chiefly and is "of rare occurrence in adult life," and Niemeyer himself observes that "we may very properly call it a disease of childhood." The converse is true of chronic phthisis; it but rarely occurs in children, it obtains pre-eminently in adult life.

(*b.*) The chronic form of catarrhal pneumonia is so infrequent that Buhl has lately questioned its existence, and it is met with chiefly, almost solely, in connexion with measles, hooping cough and capillary bronchitis. The same cannot be affirmed of chronic phthisis.

(*c.*) While the statement that a well developed paroxysmal cough accompanied in a few days by expectoration, or at least by the evidence of considerable secretion from the broncho-pulmonary membrane, and plainly explained by the physical signs of bronchitis, is almost invariably true of catarrhal-pneumonia—the statement that short cough or a mere hem, unaccompanied by expectoration for weeks, and either not accounted for by physical signs at all, or by physical signs differing in several respects from those of bronchitis and catarrhal pneumonia, is equally true as a general rule of chronic phthisis.

(*d.*) The physical signs of chronic consumption in the early stage are not those of catarrhal pneumonia. Thus in the former there shall exist for weeks and even months simply feeble respiration or harsh respiration with prolonged expiration and a shade of diminished percussion resonance at the apex of one lung without either whistling or bubbling râles — indeed these may never ensue; and the other apex and the bases of the lungs shall present no signs of disease. Broncho-pneumonia on the other hand, is pre-

ceded by the physical signs of bronchitis — the signs are distributed more or less symmetrically over both lungs, but predominate at the bases of those organs.

In view of the fact that histological examination cannot be relied upon, and that clinical evidence does not support the statement that either croupal or catarrhal pneumonia is apt to terminate in or constitute chronic phthisis, it may be concluded that Niemeyer was wrong in maintaining that chronic phthisis usually originates in inflammation of the lungs.

Admitting that ordinary lobar pneumonia sometimes ends in softening and ulceration of the lungs; that chronic bronchitis sometimes becomes complicated with induration, and that the indurated portions may slough or ulcerate; and that catarrhal pneumonia sometimes is followed by ulcerative destruction of the lungs, yet these issues are so infrequent relatively to the frequency of lobar pneumonia, chronic bronchitis and catarrhal pneumonia respectively, that they cannot reasonably be regarded otherwise than as *exceptional*, and not as the natural course of these affections.

The great fact which nearly all pathologists admit in some form, that a predisposition to pulmonary consumption, inherited or acquired exists, and which has led to the disease being placed amongst the constitutional affections, seems to prove that there is something special and peculiar to the disease which distinguishes it from simple inflammation of the lungs, whether croupal or catarrhal.

Burdon-Sanderson, while applying the facts of animal inoculation to the pathology of consumption in man, admits this *latent phthisical* bias. Virchow and his followers, including Niemeyer, admit that the predisposition to the so-called "caseous" or "scrofulous" pneumonia which the latter regards as the nature of most cases of chronic consumption, is "inherited" as "a vulnerable constitution."

It is this bias or a tendency in the individual that conditionates the peculiar characters and course of the hyper-

plastic or the inflammatory process, whichever it is, that produces consumption — and its recognition is equivalent to the admission that the so-called "caseous" or "scrofulous pneumonia" of ordinary phthisis is peculiar and essentially different from pneumonia occurring in persons free from the inherited or acquired tendency in question. It is this inherited, or perhaps acquired, mode of vital action — this constitutional bias — that causes a bronchitis or a pneumonia to take on peculiarities which distinguish it from ordinary bronchitis or pneumonia. The bronchitis or pneumonia becomes the agency of developing the latent tendency in the individual.

But I must stop lest I overtax your patience. I have attempted to show that it has not been proved by an appeal either to histology or to clinical observation, that tubercle or consumption may be produced in the human subject by the absorption of caseous and other products of inflammation, as it appears capable of in rabbits and other animals. And I have also attempted to show that clinical observation is opposed to the doctrine that ordinary chronic pulmonary consumption consists of simple pneumonia, either croupal or catarrhal, and that if the local process is inflammatory it is at least of a peculiar or specific kind, and to be designated by a distinctive name such as "caseous," or "scrofulous," or tuberculous." It has its own symptoms and signs, runs its own peculiar course, recognizes its own causes and pathology and demands its own therapeutics.

But it does not follow that we may neglect or treat as trivial a bronchitis, an intestinal catarrh, a chronic abscess, or a fistula. Nor do I wish to deny that inflammation plays an important rôle in consumption, infiltrating the pulmonary substance in the neighbourhood of the tuberculous disease with materials prone to degenerate, but simply to maintain that the great majority of cases of chronic phthisis are *not* cases of, and do *not originate* in either lobar or broncho-pneumonia.

Montreal, 31*st July*, 1874.

Since this paper was read I have seen a notice of Buhl's recent monograph upon "Inflammation of the Lungs, Tuberculosis, etc.," and have been much interested on observing that, contrary to the teachings of Niemeyer and his school, he states that neither croupous nor catarrhal pneumonia ever gives rise to phthisis. However, he has described a third form of pneumonia not previously mentioned by pathologists, under the name of "Desquamative pneumonia" the highest degree and the commonest form of which he calls "caseous pneumonia," and regards it as constituting one of the commonest forms of phthisis.

Not only does Buhl agree with the writer that neither croupous nor catarrhal pneumonia passes into consumption, but in opposition to Niemeyer he denies that "caseous pneumonia" ever originates in the catarrhal or croupous form, a view which is in harmony with the tenor of this address. Of course it remains to be seen whether pathologists will accept and confirm the existence of a third variety of pneumonia — the "desquamative" — distinct and different from the croupal and catarrhal forms.

Montreal, 19*th Aug.*, 1874.

Correspondence.

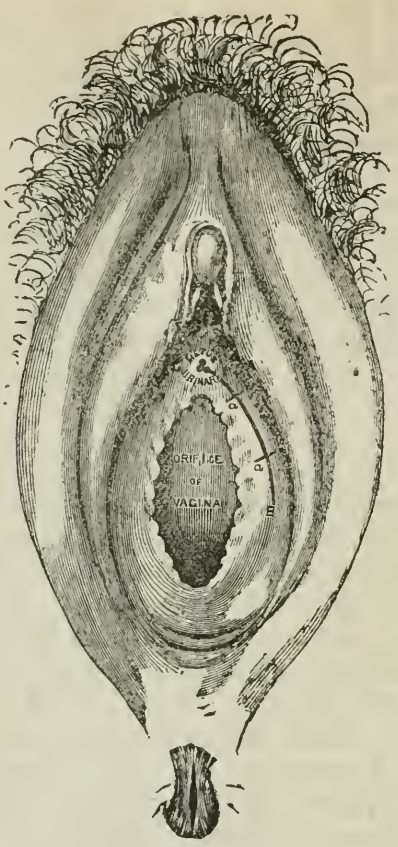
EDINBURGH, AUGUST 6th, 1874.

To-day I visited the Royal Infirmary, by the invitation of Mr. T. Annandale, and had an opportunity of seeing that gentleman perform an operation for cleft palate. In this case, the greater part of the hard palate was deficient, and the gap was fully as broad as the finger. A great part also of the soft palate was deficient. The gag was used and the patient placed under chloroform, and the operation was begun by seizing the point of the uvula on the left side, putting it on the stretch, and then, with a pointed bistoury, transfixing it at the apex of the cleft, and removing the free surface of the mucous membrane, down to the extreme edge of the uvula. The other side was pared in the same manner. A fine incision was then made on either side down to the bone, running close to the teeth. The operator then raised the whole flap and periosteum as far as the edge of the cleft, with the scraper,—thus he obtained two large free flaps, which were readily, united with sutures. The silver wire suture was used and Mr. Annandale stated that he usually left the sutures in for ten days or a fortnight. After the sutures were introduced the flaps appeared to fit accurately without the least tension. Mr. Annandale does not consider it necessary to divide the muscles on either side, according to the practice of some London surgeons, and he remarked that he had never seen any trouble from non-union in part, necessitating a second operation, nor any difficulty with the bone so freely denuded of periosteum. He also showed me a case of disease of the knee-joint in a child of about four years old, in which he purposed performing excision on

the following day. I regret that my arrangements would not allow me to remain another day in Edinburgh, and I left for London that evening. In conversation with Mr. Annandale, I mentioned, that, in excision of the knee joint in young subjects, I had removed with a fine saw, a thin slice of bone, sufficient to take away the diseased ends without removing the entire epiphyses. He said that he had done the same himself on several occasions, using a knife for the purpose, with the most happy results. This must be looked upon as a gain in operative surgery, as it is all important to save a portion at least, of the epiphyses.

London, August 8th.

This afternoon I went to King's College Hospital as I understood that Sir William Fergusson would be there and would be sure to operate, and as I had a great desire to see him wield the knife, I went early. There were not many present, and the operators were Mr. Henry Smith, who removed, with the knife, a portion of the tongue for epithelioma, and Professor Wood. Mr. Wood performed lithotomy on a female, and as his operation was somewhat novel, I will describe it. After introducing a sound and satisfying all present, by an audible click, that a stone was present, he passed a straight grooved sound into the bladder. The groove was held well inclined to the left side and a fine, long, straight bistoury was then passed into the groove, and on into the bladder, and the parts were then incised in a somewhat curved direction outwards and downwards, passing to the outer side of the vagina. The wound was, in reality, funnel-shaped, the small end being at the neck of the bladder. The finger of the operator was inserted with ease, and he then introduced a pair of lithotomy forceps, and with a little traction and quiet manipulation he removed a stone the size of a hen's egg, composed apparently of lithic acid, with a coating of



phosphates. After the removal of the stone, two wire sutures were inserted, one near the meatus urinarius, and the other midway in the incision. After the patient was removed, Mr. Wood made some very excellent remarks, and drew a rough diagram on the black-board illustrative of the different styles of procedure in this case. He said the patient had suffered from the disease for more than two years, and that she had been most heroically and persistently treated during that period for ulceration of the os uteri. She had even been an inmate of a hospital for diseases of women, and although he did not question at

the time existence of uterine disease, yet the treatment was not followed by amelioration of the symptoms. Here he would remark, that this case illustrated the fact of every day occurrence, that surgeons devoting their time exclusively to any specialty were apt to overlook symptoms pointing to the existence of other ailments, and in consequence failure to give relief was the certain result. He had been requested to see this patient some short time since, and he discovered by careful examination that a stone of considerable size existed in the bladder, sufficient in size and hardness to give an audible ring, which was heard by every one in the theatre. With regard to the operation he might state that he believed it had been seldom, if ever, performed, except in this theatre, and then only by Sir William Fergusson. It would be observed that his operation simulated somewhat, the lateral operation in the male. He divided freely the cellular tissue outside of the vagina and thus had a broad surface for subsequent union, and avoided the chance of having a vesico-vaginal fistula as the vagina was not incised, The muscular fibres of the urethra were incised in one direction only, hence there was less likelihood of incontinence of urine following the operation. He believed that in the operation for fistula in ano, when the sphincter was divided across at two points, incontinence of fæces would follow, if however, only one incision was made across the sphincter, it would regain its power retaining the contents of the rectum. So also in this operation, the sphincter muscle, so to speak, of the urethra, was incised at one point only, and therefore it would regain its tone. To prevent the urine from trickling over the wound, he would direct his patient to lie on her face.

Afterwards, Sir William Fergusson performed excision of the knee joint. The patient was a young man, comparatively robust, who had been suffering for some time from disease of the knee joint. Esmarch's bloodless method was employed, and chloroform administered, and the oper-

ation begun in the usual way. The patella was removed with all the synovial membrane, which was very much thickened, and the end of the femur and the upper part of the patella were found extremely denuded of cartilage. All the vessels, which were small were ligatured, the limb adjusted on a splint, and then the edges of the wound brought together by sutures. The whole was done in such a way as to give the spectator the idea that the operator was a perfect master of his art. Before putting up the limb, the bones were accurately adjusted and Sir William found it necessary to remove a thin slice of bone from the back part of the femur. After the removal of the patient Sir William Ferguson made a few remarks concerning the case. He subsequently operated on two cases for caries of the tarsus, gouging out the diseased bone and dressing the parts in the usual way, — with oiled strips of lint. After the removal of the patients, he exhibited two cases of successful result, after operation for cleft palate. In one case. he said that he had almost regarded cure hopeless, as the gap was so large, and also there was (what appeared to me to be) the co-existence of a double hare-lip. The results in both cases were satisfactory.

G. E. F.

MONTREAL, 20th AUGUST, 1874.

To the Editor of the Canada Medical Journal:

SIR,—In the July number of your paper a copy is given of the proposed bill "To Amend the Act of Incorporation of the Pharmaceutical Association of the Province of Quebec and to regulate the sale of Poisons." Nothing can be more satisfactory than the general tenor of this bill, since there are few matters of greater consequence to the public and to the medical profession than that a proper guarantee of efficiency should be given by those who undertake the

responsible duty of dispensing medicines. To the druggists the bill will no doubt be welcome, as tending to elevate their social and professional standing. Much has been said of the injustice of a practice hitherto common among physicians, namely, the practice of recommending some particular druggist, and yet so long as there is a possibility that a prescription may fall into the hands of some ignorant person, the prescriber is clearly justified in sending his patient where he believes the danger is least likely to occur. It is true that most, if not all the gentlemen at the head of the various establishments in this city are perfectly well qualified, yet it is no less true that in many shops persons are employed who are quite unfit to be entrusted with a prescription, and it is a matter of fact that such persons have occasionally, during unusual pressure of business, or during the absence of their superiors, been allowed to act as dispensers. This is not only a wrong to the public but is an injustice to those employers who pay high salaries to secure efficient assistants. At first sight, every necessary guarantee on the above points appears to be afforded by the 15th clause of the new Act. It reads as follows: "And it shall be unlawful for any druggist, etc., "to employ any clerk or apprentice in any shop or store "for the sale of such poisons or in the *dispensing of medi-* "*cines*, except such clerk or apprentice be registered as "required by this act." It would appear then that registered apprentices, or as they are termed, "certified appren- "tices," are permitted by the wording of the above clause to dispense prescriptions, and as the qualifications necessary for registration as an apprentice are merely that he shall have a good moral character and a fair knowledge of English, French, Latin, and Arithmetic, (see clause 7) he is clearly not a proper person to be entrusted with the duties of a dispenser. I would therefore earnestly beg that this oversight may be corrected and that the clause be amended so as to make it an offence punishable by fine for an employer to allow any one not registered as a certified

clerk or Licentiate of Pharmacy to compound or dispense physicians' prescriptions.

Yours truly, Y.

MONTREAL, 31st August, 1874.

To the Editor of the Canada Medical and Surgical Journal.

SIR,—You will confer a favor on your professional brethen in the Dominion if you will suggest with what satisfaction the bestowal of some Imperial honor upon a member of our profession would be received by the medical public of Canada.

When we consider the important services done to this our country by a class of men inferior to none in loyalty to Her Majesty's person and Government, men whose moral and intellectual influence has been felt from one end of the Dominion to the other, we consider that such an honour conferred would have a great influence for good on the profession at large.

We have amongst us at present one who is in every way worthy of the honour and dignity of Knighthood—I allude to Dr. Geo. W. Campbell, who, for his long and faithful services as a Professor in McGill College, his great success as a surgeon, his universal kindness in rendering assistance to every member of the profession, his untiring interest in the advancement of the Science and Art of Surgery, would seem in every way the most worthy recipient.

If, Sir, you will through your Journal make this suggestion generally known amongst the profession so that any necessary steps may be taken for the furtherance of its object, you will greatly oblige, amongst others,

Yours very sincerely,

M. D.

Proceedings of Societies.

CANADA MEDICAL ASSOCIATION.

The seventh annual meeting of this Association was held at Niagara Falls, Wednesday, 5th August, 1874.

The President Dr. Marsden, called the Meeting to order at 11 o'clock.

There were present Drs. Marsden, Quebec; Botsford, St. John, N.B.; Canniff, Toronto; Hingston, Montreal; Trenholme, Montreal; Yeomans, Mount Forest; Grant, Ottawa; Robillard, Montreal; H. H. Wright, Toronto; McDonald, Hamilton; Thorburn, Toronto; Thompson, Montreal; David, Montreal.

The Minutes of the last day's proceedings of the meeting of last year were read and confirmed.

Drs. Grant, Hingston and Wright were requested to take seats on the platform.

Dr. Canniff, Chairman of the Committee of Arrangements, reported as correct the credentials of Dr. A. A. Thompson, of Lansing, Michigan, and Dr. Edward Jenks, President of the Detroit Medical College and Professor of Diseases of Women, &c., &c., &c., as delegates from the American Medical Association, and Dr. H. P. Yeomans, Mount Forest, as delegate from the Union Medical Association of South Gray and North Wellington, and the President accorded them, in the name of the Association, a cordial welcome.

Letters of excuse for not being present were read from Drs. Dawson, C. C. Hamilton and Howard.

The President then delivered the following address:

GENTLEMEN:—Were I to consult my own inclination, I would not occupy any portion of the brief space of time allotted to your Annual Meeting by an address, but, as the tyrant custom requires it, I must conform, and will be

concise as possible. I will avail myself of the earliest opportunity which presents itself to thank you for the honor you have conferred upon me, in electing me your President, but I regret that language fails to express the depth of my feelings. It has often been my good fortune, during my long professional career, to have been complimented in a similar manner, but never in the same degree. When I see around me so many distinguished members of this Association who would have filled this chair so much better than myself, and when I look back and remember your —I mean our—happy choice of the able and eloquent chairman who presided over our deliberation during the first three years of the existence of this Association with so much tact, talent and success—the Hon. C. Tupper, M.P. C.B., &c.—I feel all the more inability to do justice to the office without your kind indulgence, although I will yield the palm to no man for professional zeal—my maxim having ever been, where the public interests of our noble and humane Profession were at stake,—*Semper Paratus!*

One of the subjects that will engage the attention of this Meeting is the proposed alterations of the By-Laws. The Committee appointed at the 5th Annual Session of the Association, held at Montreal, in September, 1872, to amend the Constitution and By-Laws, reported to the Annual Meeting held at St. Johns, N. B., on this day twelve months past, and recomended, "that the Plan of Organization of the Canadian Medical Association adopted at the Conference of the Medical Profession held at the city of Quebec, October 1867, and the Code of Medical Ethics, be continued without amendment;" and further recommended, "that a Constitution and By-Law be adopted instead of those heretofore in force." A copy of the labors of that Committee is now before you, entitled, "proposed alterations to By-Laws to be considered at the Annual Meeting at Niagara Falls, Wednesday 5th of August, 1874.

Having carefully examined the proposed alterations, I am of opinion that they will be a great improvement on the

present By-Laws, with some slight changes and additions.

In Ethics, for example :

It is proposed "to continue the Code of Medical Ethics without amendment," but no provision has been made in the proposed By-Laws for a permanent Committee on Ethics. Such a committee is in fact a necessity, to which, in my humble opinion, all cases of presumed infraction of the Code should in the first instance be referred for report before any public action is taken by the Association. or record made. This would prevent the odium which might attach to persons falsely charged; and would avoid the needless wounding of the sensibilities of such as were really innocent of the accusations brought against them.

So strongly was I impressed with this conviction, that I gave notice of motion in 1870, and, on the 14th Sept., 1871, carried a motion unanimously, and it was resolved, "that the Nominating Committee be instructed to name a Permanent Committee on Ethics, to be composed of ten members, representing each province of the Dominion." The Session, however, adjourned so soon after that no Committee was named at that Meeting. I would therefore respectfully recommend that, as it is proposed to continue the Code of Ethics, a Standing Committee on Ethics should also be added to the proposed By-Laws.

Registration, Medical Statistics, and Public Hygiene are all subjects which call for action, with a view to Legislation.

Committees were named at the first meeting of this Association, held on the 9th and 10th of October, 1867, at Quebec, to report on the best means of obtaining these desirable objects. The Committee of Registration, of which I had the honor to be Chairman, reported, "that, after mature deliberation, they recommend, that this Association take the necessary steps to have carried through the Dominion Legislature an Act similar (in so far as it is adapted to this country) to the Medical Act of Great Britain, passed in 1858.

The Committee of Medical Statistics and Hygiene (both of which subjects were referred to the same Committee) reported on Hygiene alone, through Dr. Hingston, the Chairman, stating, "That there was a necessity for a comprehensive system of sanitary laws," and promised a report on Vital Statistics at a later period of the Session. A reference to the Minutes of the Association (so far as attainable) shows that nothing whatever has been done in the way of Legislation in this matter.

Another Committee on Statistics and Hygiene was named at the Annual Meeting of 1873, held at St. John, N.B., of which Dr. Botsford, one of our indefatigable, intelligent, and zealous ex-Vice-Presidents is Chairman. He wrote to me on this subject in March last, as follows :—"I was named as one to bring the matter of Hygiene before the Dominion Legislature, especially looking to a registration of deaths and their causes, through the whole Dominion. For the Province of New Brunswick I have to report that, whilst Boards of Health are provided for every county, and a registration of marriages for the Province, this is all that has been accomplished ; and a registration of deaths and their causes does not exist!"

Although, Gentlemen, I quite concur in the sentiments expressed by Dr. Workman in his address of welcome at our second Anniversary Meeting, that "neither the elevation, nor what is styled the protection of our profession is to be achieved by acts of Parliament,—and, that if we would be elevated, we must climb the steep ascent ourselves," yet there are certain subjects that demand legislation before we can make any useful application of them. Among these, I class Vital Statistics, Registration, and one uniform system of preliminary and professional education, examination and licensing. Committees have reported on all these subjects, and their reports have been adopted; and, as Dr. Tupper said in his address at Ottawa in 1870, a far higher step has been taken by resolving that it was for the interest of the public and the Profession, that one

common portal of entrance should be established for the purpose of granting licences to practice."

Precisely the same opinions have frequently found utterance in the meetings of our elder sister, the American Medical Association, as will be seen by a reference to their transactions, from which, had time permitted, I might profitably have made some extracts. This is a subject that has occupied the best attention of various Committees since the formation of this Association, and resulted in the forming of the "Contemplated Medical Act for the Dominion of Canada," which was amended at the third Annual Meeting of the Association, held at Ottawa in September, 1870. It was again amended at the Annual Meeting held at Quebec, in September, 1871, and was finally referred to the Annual Meeting held in Montreal in 1872, each and every member of the Association having received in the meantime a printed copy of the same. This proposed Act has been a bone of contention—an apple of discord—to the Association ever since it was first introduced. In the Western Province of the Dominion, gentlemen, you have an Act based upon the English Medical Act, which is working most satisfactorily. The Province of Quebec, also, has an Act that needs very little amendment. The Eastern Provinces, however, of Nova Scotia and New Brunswick, which are younger in Medical Science and Literature, and have hitherto been almost without medical schools, are not so far advanced in medical sciences as the older Provinces of the Dominion, and are not ready to enter on the same platform as their elder brethren, and, therefore, at the Annual Meeting, held in 1872, it was resolved unanimously, to postpone the further consideration of the proposed Bill for two years. Thus it has been suspended, like Mahomet's coffin, between heaven and earth, for two years past, and will possibly come up for action at this meeting. Doubts have been expressed by lawyers, as well as legislators (and by no less an authority than Dr. Tupper), of the legislative powers of the Parliament of the

Dominion to pass any Medical Act for the whole Dominion, unless, or until previous concerted action had been taken by the Local Legislatures ; and to this opinion I strongly incline. In the American Medical Association progress is being steadily made in that direction by State legislation, and I think the best thing we can do is to agitate the subject in each Province of the Dominion, and separately and gradually lead them up to the highest standard required.

Thus only can we hope to suceed in Dominion Legislation. I would, therefore, respectfully suggest that, when this matter comes up, some member will move that its consideration be indefinitely postponed and thus put an end to a fertile source of discord. Let us carefully avoid all medical legislative action for the present, for to my mind no greater blunder could be committed in this democratic age, than seeking legislation, as the sympathies of legislators generally, and especially the unscientific who compose the majority, are in favour of quackery and free-trade in medicine. Another subject, Gentlemen, to which I would call the attention of this Meeting is the great loss that the Association has sustained by the non-publication of the Minutes of its proceedings for the past two years. Whether the Association has the means to publish the Transactions, Reports, Proceedings and other papers or not, the Minutes of our proceedings, at least in opinion, out to be in the hands of every member of this body. I trust we shall this day repair our error, and make any necessary sacrifice to publish them. The valuable unpublished papers which have been presented, read, and approved by this Association, and which must have cost their authors much study, valuable time and trouble, remain a dead letter,—a dumb record—a sealed book to the whole medical and scientific world. For this seeming neglect I know not whether the accomplished and industrious writers, or the reading members of the Profession at large have most reason to complain. Although this

Association was organized for the protection of the interests of the Medical Profession, and the maintenance of its honor and respectability, it also contemplated the advancement of its knowledge, and the extention of its usefulness; and shall it be said of us, that we have done nothing to promote these high and laudable objects because our transactions embrace none of the essays and papers which for originality, learning and profound research would be worthy of honorable place in any similar volume? Let us, gentlemen, this day, I repeat, wipe out this reproach, and either publish them, or return them to their respective authors, for such action as they may see fit to adopt, for nothing should be kept back or hidden in this progressive age. Progressive did I say? Yes, progressive! And it would be very easy did time permit, to shew the wonderful strides that medical art has made even in our own days. It has been raised from the level of a mere conjectural science to the status of a positive art. Mental agony and physical torture have now succumbed to bloodless and painless operations. Operations which formerly no amount of moral or physical courage could have induced the sufferer to submit to, are now endured with complacency.

Chemistry is a new science.

Were it possible to weld the link in the mortal chain which was so suddenly snapped asunder on the morning of the 29th of May, 1829, at Geneva in Switzerland,—or to revive the mortal spark in the poor boy of Penzance, Cornwall, who was a popular lecturer on Chemistry to the Royal Institution, London, at 22 years of age,—or to bring before this Meeting him who for seven successive years was the unopposed President of the Royal Society of London, Sir Humphrey Davy, he, like Rip Van Winkle, would find all the ancient landmarks swept away by the progress of that science which his genius had done so much to fructify and embellish. He would be a student still, Gentlemen, as we all ought always to be.

Notwithstanding the extraordinary strides that have been

made of late years in the Medical and Surgical arts and sciences, and the accessory branches of knowledge, and although the rewards are by no means equal to the responsibilities of the medical practitioner, nevertheless his sterling worth is not unfrequently recognized and requited.

Mr. Gladstone, at the dinner of the British Medical Association last year, paid a just tribute to our art, and said that but for the care and watchfulness of a succession of able physicians it would have been impossible for him to have gone through the fatigues of public life. It is, said he, among the wonderful and noble distinctions of your noble, illustrious Profession that, although its members may not receive that acknowledgement which awaits the soldier when he falls on the battle-field, yet they are to be found in countless numbers among the truest martyrs in the cause of humanity. He further said truly, that medical knowledge has advanced in recent years in a degree which is not, perhaps, paralleled in any other profession. There is at present a greater and more sustained earnestness of purpose, and a more general exaltation of the aims of medical men. And he concluded thus :—This age is distinguished by an unbounded activity in all the sciences of observation. Of all these sciences yours is the noblest. It is given to you to study the relations between the wonderful body and the still more wonderful soul and mind of man. You tread that borderland in which the two come in contact. It is very easy to describe the post office or the railway system, but you have to deal with a thing far more subtle when you attempt to grasp human nature as a whole. Human progress is not to be described by formularies. It is only by the most patient observation that a sound and comprehensive knowledge on such a subject can be acquired. To you it belongs to seize the great opportunities and to accept the great responsibilities which attach to the Profession of which you are members, and to show yourselves worthy of the great vocation with which you are entrusted.

Apologising for having occupied so much of your valuable time, and again thanking you for the high honor you have conferred upon me (probably as a recognition of the part I took in originating and organizing this Association) I leave its perfection in your hands, Gentlemen, and in your hands it is safe. It is, I firmly believe, destined to promote the blessings of fraternal harmony, professional unity, and successful self-government. An Association such as ours—composed of Scientific Philanthropists—the residents of the frozen North and the sunny South ; the denizens of the forests, hills and dales, lakes and islands of a whole continent, animated by the most lofty and honorable impulses, casting their various and opposite opinions and prejudices together on the common altar of science, and uniting in one independent, cosmopolitan band, from Prince Edward Island to British Columbia—from the Atlantic Ocean to the Pacific, must and will be felt and heard. United, concorded action—no law can resist ;—no law-maker can repudiate.

Finally, Gentlemen, when I retire from this chair I shall remember that " the private station is the post of honor," and I beg to assure you that I shall always (whether present or absent) try to uphold the honor and dignity of our noble Profession, and especially of this Association.

When it was moved by Dr. Trenholme and seconded by Dr. Botsford: "That the thanks of the Association be tendered to the President for his address, and that it be referred to the Publication Committee," which motion was carried unanimously.

On the motion of Dr. Canniff, seconded by Dr. Wright, the following gentlemen were elected permanent members: Drs. Baxter, Cayuga ; Mullin, Hamilton ; H. P. Wright, Ottawa ;—and on the motion of Dr. Wright, seconded by Dr. Trenholme, Drs. John Turquand, Woodstock, Hugh McKay, Woodstock ; Daniel Clark, Princeton, and D. A. Hart, Montreal.

The proposed alterations to the bye-laws were then brought up and Dr. Botsford moved that they be considered, clause by clause, wnich was done, and were proceeded with as far as the Standing and other committees, and all passed with a few verbal alterations, when the Meeting adjourned for an hour.

AFTERNOON SESSION.

The President assumed the chair at 3.30 p.m. The Minutes of the morning's Meeting were read and confirmed.

On the motion of Dr. McDonald, seconded by Dr. Botsford, Dr. Malloch and Dr. Case, both of Hamilton, were elected permanent members.

The remainder of the bye-laws were then discussed and, with some amendments, all were passed, when Dr. Botsford, seconded by Dr. Canniff, moved, "That these by-laws, as amended, be adopted," which was unanimously agreed to.

The following gentlemen were then proposed and elected as the Nominating Committee: Drs. Grant, Baxter, Clark, Robillard, Hingston, Trenholme, McDonald, Turquand, with power to add to their number.

On the motion of Dr. Grant, seconded by Dr. McDonald, the consideration of the proposed Medical Act was postponed indefinitely.

On behalf of the Committee on Vital Statistics, Dr. Botsford stated he was not aware of any action having been taken.

Dr. Grant moved, seconded by Dr. Canniff, "That, in consideration of the best interests of Medical Science, it is desirable that a Medical conference should take place between the American and Canada Medical Association, at some Central point to be determined upon, and that the American Medical Association be advised as to the desirability of thus becoming more intimately acquainted, and affording an opportunity for the discussion of Medical and Surgical subjects on a common basis," which was carried unanimously. When Dr. Hingston, seconded by Dr. Bots-

ford, moved, "That, in the event of such a conference being determined upon, it would be desirable that the secretary of the Canada Medical Society notify the various local Medical Societies, so that our Dominion might take part in a manner worthy of the occasion, and in keeping with the best interests of Medical Science," which motion was agreed to.

Dr. Trenholme then read a paper on Uterine Decidua, and Drs. Clark, Hingston, McDonald, Grant, Yeomans, Botsford and Sloane spoke on Dr. Trenholme's paper, causing a most interesting discussion.

Dr. Jenks offered some remarks as to the meeting of the two Associations, with thanks for the reception accorded him and his friend, Dr. Thompson.

The Meeting then adjourned till 8.30 p.m.

EVENING SESSION.

The chair was taken by the President at 8.30.

The Minutes of the afternoon session were read and confirmed.

On the motion of Dr. Canniff, seconded by Dr. McDonald, Dr. Mack, of St. Catharines, was elected a permanent member. Dr. Mullin presented to the Association a preparation of the skeleton of a double-headed monster, exhibited drawings of it, and read a lucid and interesting paper on its formation.

Dr. Malloch read the notes of a case of defective development; and, on motion, the thanks of the Association were accorded to Drs. Mullin and Malloch for their interesting papers.

Dr. Botsford exhibited a model of a plan he had adopted for relieving pain in moving patients, explaining the method, and a vote of thanks was given Dr. Botsford.

Dr. Trenholme then replied to the questions that had been put him, in the discussion on his paper, and another very interesting discussion took place, and a cordial vote of thanks was moved and passed to Dr. Trenholme for his paper

and the interesting and instructive discussion it produced, and a request that he would hand it to the Publication Committee.

Dr. Turquand, seconded by Dr. Trenholme, proposed Dr. William Scott, of Woodstock, as a permanent member, —Dr. Scott, was unanimously elected.

Dr. Malloch read a carefully prepared paper on the Contagiousness of Enteric Fever, and a vote of thanks was accorded Dr. Malloch, with the request that it be given the Publication Committee.

The Secretary read a letter from Dr. Rosebrugh, stating that, owing to illness, he had been unable to prepare a paper to lay before the Association.

It now being 11 o'clock, on the motion of Dr. Botsford, seconded by Dr. McDonald, the Association adjourned till 9.30 to morrow morning.

SECOND DAY, THURSDAY, 6TH AUGUST.

The President opened the Meeting at 10.30 a.m..

Dr. W. Scott, of Woodstock, exhibited a pessary of his invention for retroversion and retroflexion of the uterus, explaining its uses and advantages; a vote of thanks was accorded Dr. Scott, and the matter referred to the Committee on Obstetrics.

On motion, Dr. J. Fulton, Toronto, was elected a permanent member.

Dr. Hingston, as chairman of the Nominating Committee, reported the following gentlemen as the officers for the ensuing year:

President	Dr. LeBaron Botsford,	St. John, N.B.
Vice-President for Ontario	Dr. J. D. McDonald,	Hamilton.
" *Quebec*	Dr. J. P. Rottot.	Montreal.
" *Nova Scotia*	Dr. Wickwire	Halifax.
" *New Brunswick*	Dr. G. A. Hamilton	St. John.
General Secretary	Dr. David	Montreal.
Treasurer	Dr. Robillard	Montreal.
Local Secretary for Ontario	Dr. Malloch	Hamilton.
Local Secretary for Quebec	Dr. F. E. Roy	Quebec.
Local Secretary for Nova Scotia	Dr. Morgan	Halifax.

Local Secretary for New Brunswick..Dr. Gregory.....Fredrickton.
Committee on Publication.....Drs. Marsden, Peltier, W. Scott.
Committee on Medicine.....Drs. Howard, Sewell, H. H. Wright.
Committee on Surgery.....Drs. Hingston, Canniff, Grant.
Committee on Obstetrics.....Drs. Trenholme, Lavell, U. Ogden.
Committee on Therapeutics, New Remedies, Medical Jurisprudence} Drs. D. Clarke, Thornton, Fenwick.
Committee on Necrology.....Drs. F. W. Campbell, Grenier, DeWolf.
Committee on Medical Education & Literature.....} Drs. Bayard, Parker, Fulton.
Committee on Prize Essay.....Drs. Hodder, Oldright, Craik.
Committee on Climatology.....} Drs. Botsford, Larocque, Thompson, Mullin, Turquand.

All of whom were unanimously elected, when Dr. Botsford returned thanks for his election to the office of President.

On motion of Dr. Thorburn, seconded by Dr. Mack, Dr. W. L. Copeland, of St. Catharines, was elected an ordinary member.

Dr. Robillard, seconded by Dr. Botsford, proposed that Halifax be the next place of meeting, ten voted for and ten against, the President gave the casting vote in favor of Halifax, and the question being put it was carried unanimously.

Dr. Botsford moved, seconded by Dr. McDonald, "That the same sum as was voted last year be given the Secretary, and that the Treasurer be paid his expenses," which was carried unanimously.

Dr. Hingston, on behalf of the Auditing Committee, reported having examined the Treasurer's books and accounts and found them quite correct.

Dr. Hingston offered a few observations on the methods of arresting hemorrhage which produced an interesting discussion, on which Drs. Mack, Sloan, Grant, Trenholme, Geekie and Turquand took part.

Dr. J. M. Fraser, London, Dr. Jno. Fraser, Southall, and Dr. Burgen, Welland, were, on the motion of Dr. Thorburn, seconded by Dr. Baxter, elected permanent members.

Dr. David then read a paper,* prepared by Dr. Howard, on the Pathology of Tubercle and Pulmonary Consumption, when it was moved by Dr. Oldright, seconded by Dr. Rosebrugh, and unanimously resolved, "That, while regretting the absence of Dr. Howard, the thanks of this Association be given him, and his interesting paper handed to the Committee of Publication.

Dr. Botsford, seconded by Dr. Wright, moved, "That the thanks of this Association are due and be given to, Messrs. Colburn and McOmber, the proprietors of the Clifton House, for their kindness and liberality in having reduced their fares, and for having given their hall for the Meetings of this Association free of charge," which was carried.

Moved by Dr. David, seconded by Dr. Oldright, it was resolved, "That Dr. Botsford, President elect be authorized to name the Committee of Arrangements for the next Meeting at Halifax.

On motion, the President left the chair, and Dr. McDonald was requested to take it, when Dr. Baxter, seconded by Dr. Thorburn, moved a vote of thanks to the President for his able conduct in the chair, which motion was carried; Dr. Marsden returned thanks.

A vote of thanks was unanimously passed to the General Secretary, the Treasurer, and the other Officers of the Association, and the Meeting adjourned.

A. H. DAVID, M.D., Ed.,
General Secretary.

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*This paper will be found at p. 97.

Periscopic Department.

Clinical Lecture on Amyloid and Fatty Liver in Relation to Operations. By RICHARD BARWELL, F.R.C.S., Surgeon to Charing-Cross Hospital.

GENTLEMEN,—I have on several occasions pointed out to you certain cases of prolonged and severe suppuration produced by caries and necrosis or by disease of joints, and have shown to you that in several of these the liver has been plainly and palpably enlarged, sometimes to a very great extent. I will now give you shortly the details of two such instances as a groundwork to the study of the forms of malady which produce this enlargement.

CASE 1.—Caroline L——, aged four years and a half, was admitted into Charing-cross Hospital on July 5th, 1870, under the care of Mr. Hancock, with hip disease. The case was severe, and, in spite of treatment, became worse; eight months after admission the child was greatly reduced by excessive discharge from large abscesses extending down the thigh. Mr. Hancock proceeded to excise the head of the femur, but during the operation the bone broke in two places; it was, in fact, a mere shell. The limb was placed on an interrupted splint; the bone reunited; the patient gained in flesh and strength, and left the hospital on June 4th, 1872, with still an open and discharging sinus on the outer side of the thigh, and another at the operation wound.

She was readmitted into the hospital on Sept. 4th, 1872, under my care. The left leg was very much wasted and shortened. Six open sinuses communicated, three with diseased bone at the upper part of the femur and acetabulum, and three lower in the thigh at the places of fracture. She was much wasted and anæmic; the skin of an opaque yellowish hue; the pulse, very small, varied at different parts of the day and night from 98 to 130; appetite bad and capricious. The liver was much enlarged, extending

through a considerable part of the right lumbar and a great portion of the umbilical region; it was smooth and hard. Urine healthy. No perceptible enlargement of the spleen. There was no evidence of tubercle in the lung.

Having watched this child with great care, I concluded that, in spite of the unfavourable condition, it was my duty to propose removal of the limb at the hip. Some time elapsed before consent could be obtained, but late in October it was given.

On Nov. 1st I examined her carefully. She was emaciated to a mere bag of bones, and was evidently weaker. The liver extended to a finger's breadth of the crest of the ilium, thence crossed hardly half an inch above the umbilicus, and disappeared under the left hypochondrium; it was hard but smooth; its shape apparently not changed. No evidence of affection in any other organ.

On the 2nd November I amputated at the hip, and, owing to care in my arrangements and the skill of my assistants, barely an ounce of blood was lost. The child rallied rapidly; a few drawbacks occurred in the first fortnight, but after that her progress was uninterrupted and rapid. She left the hospital on Feb. 6th, 1873.

In April, 1874, I examined this patient, having seen her occasionally in the interval. She was, save for the loss of the left limb, a very healthy, strong-looking girl. The liver was examined both by myself and Dr. Pollock, and was found to be perfectly normal in size, and its functions duly performed.

Caroline T——, aged fourteen, was admitted on the 8th of April, 1873, into Charing-cross Hospital, under my care, suffering from a recurrence of inflammation after old hip disease. The child was greatly emaciated and anæmic; the left hip was much swollen, and around the joint was deeply-seated matter; also the inguinal region was swollen and fluctuated, showing the presence of pus within the pelvis. Several sinus mouths were situated around the trochanter and on the outer side of the thigh. She was treated for six

weeks by rest and tonics, in the hope that such improved condition might benefit, but at the end of that time she was found to be weaker and thinner, while the abscesses, especially that within the pelvis, had become larger. She was then more fully examined. The probe was passed into three or four of the sinuses, and two of these were found to enter a cloaca and so pass to a necrosis situated deep in the head and neck of the femur. It was evident that unless this could be removed the child would die of exhaustion. At this time the liver was greatly enlarged; it extended downward and through two-thirds of the right lumbar region; in the middle line its edge was two fingers' breadth above the umbilicus; it was smooth and considerably indurated. The urine was nearly neutral, and contained phosphates, but neither albumen, sugar, nor any casts of the tubuli; there was no diarrhœa; no enlargement of the spleen could be detected.

July 21st.—She was placed on the operating table, and, chloroform being administered, it became evident that the hip was anchylosed (true anchylosis); but the central parts of the head of the bone being necrosed, and there being a large collection of matter within the pelvis, I nevertheless made a semilunar incision behind the trochanter, as for resection of the hip, sawed through the neck of the bone as close as possible to the pelvis, applied a trephine to the truncated head, and with it cut out the necrosis, perforated the acetabulum, and let out of the pelvis a large quantity of dark-coloured pus.

The child rallied from the operation with difficulty, but after the first few days went on very well, regaining appetite, and beginning to put on flesh, till two months after the operation, when a patient having undergone the operation for ruptured perineum was placed in the same ward. The considerable fetor arising from this case affected her markedly; the discharge, hitherto diminishing, increased; the appetite failed, and she began to lose flesh. Removal to another ward changed all these conditions, and she went

on uninterruptedly well until the 6th of March, 1874, the date of her discharge. At this time the child was comparatively rosy and stout; the liver had very nearly gained its normal size, and its functions were duly performed.

Both these cases are operations somewhat remarkable, especially the latter (for I am not aware that any such has been performed or described); yet it is not to that part of the subject to which I would now direct your attention, but rather to the condition of the liver and other abdominal organs.

A patient who has suffered long from free suppuration, whatever be its origin, falls into a state of considerable cachexia: the body loses much of its fat; the skin becomes pale, of an opaque hue, often also dry, rough, and inelastic. In spite of the general emaciation, the abdomen, more especially of children, is generally tumid; percussion returns over the greater part of its surface a loud, hollow note. On passing, however, to the right side, this loud note will be dulled over a certain distance below the hypochondrium according to the extent of enlargement; occasionally, as was the case in the girl C. L——, this dulness, marking the extent of the liver, will reach as low as the crista ilii, or close to it. By using the mode of manual examination called "palpation" you will find the edge of the viscus, and feel its surface more or less distinctly according to the thickness of the abdominal walls. Observe that the surface of the gland is quite smooth, and the organ not altered in shape, save that its lower edge may appear rather rounder and thicker than usual; while again, in some cases, the organ seems firmer and harder, in others softer, than normal.

There is, then, in these cases a uniform increase in size, which does not affect by pressure or obstruction the portal circulation, since it is not accompanied by ascites; and though it may diminish, it does not annihilate the secreting function of the gland, since the fæces are coloured with bile, and since there is no jaundice.

This enlargement is due to the deposition in the constituents of the organ either of oil-globules (the fatty liver), or of a material called amylaceous (the amyloid or lardaceous liver). It is not my intention now to detain you with a minute description of the pathological anatomy of either of these states. I need only say that the latter consists in the gradual infiltration of the structure with a material which appears to consist of homogeneous molecules—apparently a low form of protein, which hardens, thickens, and whitens the organ, and in some cases no doubt destroys its function. The tissue thus affected is changed from its normal stage of high organization into the lowest type of organic matter, which hardly possesses life or function, since it can scarcely undergo change—with difficulty even that last change of dead organism, putrefaction. Therefore, as you will see at once, change from this state back to healthy condition would seem barely possible, and indeed most writers on this subject consider the malady irrecoverable. On the other hand, fat in the shape of oil-globules, is frequently present in the liver as a normal and temporary sequela of absorption from the intestine of oily ingesta. The accumulation of such substance in the cells of the gland to a morbid extent may be due to a variety of causes: it is common in phthisis and in heart disease, probably as a result of interference with the changes which the blood should undergo in the lung; it is also not unusual in wasting suppurative disease as of bones or joints. The tendency thereto, is, I believe, increased, especially in children, by confinement to bed, combined with the high feeding which is usually employed in such cases. Since, then, in healthy life, fat is frequently present in, and as often removed from, the liver, it is plain that recovery from its morbid accumulation in that organ is a much more easy process, a far more likely event, than restoration to the normal state of a liver infiltrated with so immobile a material as that which constitutes the amyloid deposit. Therefore we are often presented with certain problems which are at once of high

importance and of extreme difficulty. The first concerns our power, or want of power, to discriminate during life between these two forms of liver enlargement in the cases we are considering; the second, our faith, or want of faith, in the power of nature to cure the secondary malady if it be amylaceous, when its exciting cause, the source of suppuration, has been removed.

Concerning the former problem, I can only say that our means of differential diagnosis are very imperfect, the greater hardness or softness of the liver being our chief guide; and I need not tell you that such a sensation conveyed through abdominal walls may be deceptive, especially if those walls be thick. But fatty liver does not reach the size to which an amyloid organ may attain, as exemplified in the cases above given.

About the second problem much might be said if space allowed me to quote and to remark upon the views of many authorities. The whole balance of opinion is that amyloid disease, once commenced, is of necessity a progressive and fatal malady. With this conclusion, as far as the liver is concerned, I cannot agree; but it is impossible to prove absolutely such position, because if a person having an amyloid liver recover there occurs no opportunity of showing by chemical or microscopic examination the condition of the organ; and this is the position to which I am forced in regard to the above cases. The remarkable hardness and size of the organ, together with the condition of the patient's skin, &c., convinced me that the enlargement of the liver was in neither case due to fatty change; but I cannot prove it.

Although, then, it may in some cases be impossible to diagnose with certainty during life between these two forms of enlarged liver, we have, nevertheless, a certain and sure guide to practice. Since prolonged suppuration causes such enlargement, the liver is in every case to be carefully examined, as are also other organs, for the liver itself is not often attacked alone by the amyloid change. This organ

may, as to size, be easily interrogated. Any considerable enlargement of the spleen may be detected without difficulty in young persons. Albumen in the urine is an early symptom of the amyloid kidney, and not unfrequently the peculiarly altered epithelium and sometimes casts may be found sufficiently characteristic to give the key to the form of Bright's disease whence the albuminuria arises. Amyloid intestines are in their earlier phases with difficulty made out. Obstinate, even recurrent, diarrhœa is a suspicious sign, and careful observation of the excreta may disclose cast off villi, even clumps of villi, with the characteristic hyaline appearance, and this even without any pus or sign of ulceration. If, after careful investigation on these points, the absence of any sign of amyloid disease save the enlargement of the liver be determined, any operation for the removal of suppuration is not only justifiable, but our imperative duty. Without operation the patient must die; after operation, however hard, large, and changed be the liver, there is a fair, indeed a considerable chance of recovery, as the above cases sufficiently indicate.—*Lancet.*

The Therapeutical Action of Quinine.

M. Sée has been delivering at the Charité a series of clinical lectures on the therapeutic action of quinine, some notes of which may be of interest. He is one of the most advanced scientific therapeutists, and believes that the action of drugs in disease may be predicted and explained by their physiological action in health. It is impossible to give more than a general idea of the views advanced and ably expounded by references to the natural history of the various diseases and the known action of quinine in their different forms, especially with regard to malarial fevers and acute rheumatism. His general conclusions are as follows:—

In health quinine has a threefold action; firstly, it diminishes the frequency and force of the action of the heart; secondly, it lowers the tension in the arterial system; and, thirdly, it lowers the temperature, or prevents

its elevation by exercise &c. Whilst recognizing its action on the amœboid movements of the white blood-corpuscles, as shown by Cohnheim, Binz, and others, he does not regard this as of great importance.

In an able analysis of the various forms of malarial fever, and the teachings of experience as to the value of quinine in each, he concludes that the drug cannot be regarded as a specific or counter-poison as—(1) it does not prevent malarial poisoning when taken as a prophylactic; (2) it does not prevent recurrence after a variable period; and (3) it is useless in some of the most fatal forms, especially where the fever tends to assume a continued type. Moreover, he points out that in other fevers which present the characters of periodicity and the occurrence of initial rigor —e. g., urethral fever from catheterism,—quinine has an equally beneficial effect. He believes that the effect of quinine in ague is due to its three-fold action, exerted chiefly during the period of rigor: by its action on the heart, it diminishes its frequency and force; on the peripheral arteries, it lowers their tension and produces dilatation; on the spinal cord and vasomotor centres, acting as a sedative, it tends to diminish their excitability; and, lastly, it exerts a direct cooling action on the system generally;—the latter, however, being the least important factor.

In acute rheumatism, M. Sée considers it by far the most valuable medicine; and states that he always returns to it with benefit after the trial of all other methods of treatment. Here, again, he sees in its physiological action the most precise indications for its use. Especially in its effect on the spinal cord—in lowering its irritability, and thus diminishing the sensibility to pain; and lessening reflex excitability, and thus reducing irritation and the afflux of blood to the inflamed joints—does he consider that its value lies, its action on the vascular system and in lowering temperature being also beneficial. The dose which M. Sée recommends is from ½ to 1½ grammes (or 8 to 24 grains nearly) in the day: increasing it, however, to 2 or 3 grms., or even more if needful. It may be mentioned that this mode of treatment is adopted by a large number of the leading physicians in Paris, either exclusively or with other means; and they all appear to be unanimous in its favour. It is only in the acute stages that M. Sée considers it beneficial, except for the relief of pain; and in this respect it is also useful in gout.—*Lancet.*

Medical News.

THE LATE VACCINATION CASE.

[We have received from Dr. Larocque, Health Officer, the following particulars concerning the vaccination case, the facts of which are given in our last number. In the first place he explains that, with a view of obtaining a new supply of thoroughly reliable lymph, he procured, in May last fresh lymph in tubes and on ivory points from Dr. Martin of Boston, who guarantees it to come from the celebrated Beaugency Stock. From this lymph, a fine heifer was inoculated in the presence of several medical men. The result was perfectly successful, and at the end of eight days Dr. Larocque charged some ivory points and vaccinated several children and another heifer, the resulting matter was furnished to a great number of town and country physicians, almost all of whom have spoken to him in the highest terms of the success they have met with in using it, and not a single complaint has been heard.—*Ed.*]

At the meeting to investigate the case there were present Drs. Howard, Rottot, Ricard, Mount, Trenholme, Grenier, Lussier, Desrosier, Dugdale and Larocque besides Drs. Coderre, Gariepy, Gauthier, Craig and Crevier. Dr. Rottot took the chair.

Dr. Larocque explained the purpose of the meeting. He said that to satisfy the public upon this question of vaccination it was important to decide whether the child had or had not really suffered from the effects of vaccination. The chairman of the Health Committee had desired the Health officers to report to him upon the case, and he therefore hoped that this meeting would so sift the case as to enable them to give a clear and lucid explanation of the whole matter.

Dr. Roy was then questioned by different members, the following being the principal points brought out.

To Dr. Ricard. *Q.*—You say that on the 13th July, 18 days after vaccination, the scab was perfect, and you asked the mother to keep it for you?

Ans.—Yes.

Q.—After the scab came off, there remained a depression one or two lines deep, was this depression as large as a five cent piece?

Ans.—It was much less.

Q.—You are aware that in the month of July the majority of young children are affected with diarrhœal complaints?

Ans.—Yes, and I have had such cases but not until the 10th July.

Q.—Do you know what this child was being fed upon?

Ans.—As the parents were poor, the child eat along with the other members of the family, beef, pork, potatoes, milk, &c.

Q.—There are several bluish spots around the knee. Do you not think these due to the remains of some former eczema or impetigo.

Ans.—They are from splinters from crawling on the floor.

To Dr. Dugdale. *Q.*—Did you observe any inflammation in the axillary glands?

Ans.—No.

Q.—Did you vaccinate the child with lymph or from the scab?

Ans.—From lymph on an ivory point.

Q.—In how many places did you insert the lymph?

Ans.—In two places but only one took.

Q.—At what period did inflammatory symptoms show themselves in the arm?

Ans.—Four days after vaccination and continued to increase until the tenth day from which time they diminished.

To Dr. Trenholme. *Q.*—Have you much experience in vaccinating?

Ans.—Very little. I have only been in pratice since the month of May.

Q.—As a bandage pressing upon the scab would be very liable to induce suppuration, can you say if it was tightly applied?

Ans.—I do not think it was.

Q.—The slough removed with the scab, was it of cellular or of muscular tissue?

Ans.—The slough was about one line in diameter and two lines in depth and was composed of muscular tissue.

Q.—What was the pulse and the temperature when the child was so ill that you feared it would die?

Ans.—The child was too weak for me to ascertain either one or the other.

After these and other questions Dr. Howard addressed the meeting as follows:—

"We have met to enquire into the facts connected with a case in which the opponents of vaccination have stated over their own names in the secular press that a child had suffered so severely from vaccination that its life was in danger—that the symptoms resembled those of poisoning by a dissection wound. We have heard the evidence of the gentleman who vaccinated and attended the child, and of the two gentlemen who examined the child 17 or 18 days after the operation had been performed, and we have examined the child—and I must say that it is a matter of surprise to me that gentlemen of such standing in our profession should have published such a case as proving the injurious effects of vaccination. On so grave a subject—one so intimately connected with the welfare of humanity—we have a right to expect that scientific men, before venturing to make statements over their own signatures in the newspapers, should take care that they have a reliable basis of fact upon which to rest their authoritative statements. From what we have just heard, and after a careful examination of the child, the important facts of the case may be thus summed up:—

"A child 13 months old, having only six teeth, is during the hot weather of June vaccinated. On the fourth day thereafter, when the vaccine vesicle had appeared on the arm, diarrhœa and fever set in, but although the diarrhœa continued until the 9th of July, no other extraordinary symptom had been noticed before that day, and then the inguinal glands were found enlarged and the scrotum

inflamed. The attending physician did not examine whether there was also excoriation about the anus or in the fold between the thigh and the perinæum. Three days later, so pleased was the attending physician with the progress of the case, that he ordered a bandage to be applied to the arm to preserve the scab; but next day on removing the bandage, he found the found the scab adhering to it, and upon the under surface of the scab a piece of mortified 'muscular tissue.' These are all the facts upon which the grave charges published in the *Minerve* are based; and they appear to me easily and satisfactorily explicable upon general pathological principles and experience.

"The concurrence of diarrhœa and fever on the fourth day after vaccination, with the appearing of the vesicle on the arm was a mere coincidence. What improbability is there in the idea that a teething child should during the hot weather, when diarrhœa is usually so prevalent as to be all but epidemic, suffer from febrile diarrhœa? All the more, that the child's diet consisted of meat and potatoes, and other articles partaken of in common with the rest of the family.

"Then, as to the enlarged condition of the inguinal glands and the inflammation of the scrotum, which have been adduced as evidence of the injurious effects of the vaccine virus, such a statement is unfounded. There are anatomical reasons which disprove it. The glands situated in the neighborhood of the irritated or poisoned part and receiving the lymphatics from it are the glands which should have suffered first and chiefly. Yet in this case the inguinal glands, having no direct anatomical connection with the arm or its lymphatics were inflamed. And the correct explanation of this state of the glands is probably simple enough. The diarrhœa became associated with excoriation of the anus and adjacent parts, as so frequently happens, and the local irritation conveyed to the injured glands induced inflammation in them. Superficial inflammation and excoriation of the scrotum is a frequent attendant upon diarrhœa in young children and such was unquestionably its relation in this instance.

"In view of these facts, I would like to move—

Resolved—"That after having carefully examined the child of Widow Leblanc, said to have been seriously affected by the effects of vaccination, this assembly is of the opinion that there has been no proof of such being the case."

Dr. Mount seconded the resolution, and after a few further observations it was carried by a large majority of the members present.

Dr. Coderre objected to any such resolution being passed.

Dr. Ricard.—On the contrary, after the prolonged investigation which we have just made, we can, with full knowledge of the facts, pronounce upon the present case. And besides, it is our duty to do so. The community has been alarmed by the exaggerated and highly colored reports furnished to the public papers, and the public look to us for such an expression of opinion as shall represent the truth of the whole matter. It behoves us therefore as men to express such opinion so as to allay those fears which have unfortunately been aroused in the public mind.

Dr. Trenholme.—I fully concur in Dr. Howard's resolution and I would add that the cachectic state of the child is abundantly shown by the numerous cicatrices to be seen upon its body. Dr. Coderre and his followers ought to follow the code of Ethics which govern medical men all over the civilized world. We should find means to make this code generally understood and to punish in some way all conduct contrary to the rules adopted by the profession. Scientific men alone are capable of discussing matters of this kind, and to appeal, as has been done to the public, can serve no good end, and such a course is unworthy of any medical man, and of the noble profession to which he belongs and whose honor he ought to have at heart.

Dr. J. W. Mount.—I agree thoroughly in the resolution of Dr. Howard and will second it with pleasure. If Dr. Coderre, who has just said that the arms he will use against us will be those of courtesy, chooses to continue insulting us in the public papers, and imputing to us sordid motives because we do not think like him, why, let him do so: for my part, I shall give him more credit than he gives us, and will admit that his opposition to vaccination is at least conscientious.

CANADA

Medical and Surgical Journal.

MONTREAL, SEPTEMBER, 1874.

HONOR TO WHOM HONOR.

We publish elsewhere a letter from an esteemed *confrère* in which he makes a suggestion well worthy of the consideration of every member of the profession. Imperial honors, such as that suggested by our correspondent, have been conferred already upon eminent Canadian soldiers, Canadian jurists, and Canadian statesmen — men who have given noble aid in developing the destinies of this Canada of ours, in the field, the forum, and the Parliament. The dignities bestowed upon these gentlemen have been duly earned and honorably borne. We are not sufficiently democratic to undervalue such distinctions, and there can be no doubt that every new honor thus conferred by Her Most Gracious Majesty upon some one who has proved himself a patriotic Canadian by having done a work beneficial to the country at large, is felt by every true compatriot as an honor conferred upon his country and upon himself. Is it alone in a military career, or by services as a learned judge, or by advancing our commercial interests, or by the perfection of statesmanlike measures, that services can be rendered to be fittingly rewarded only by public recognition from the source of all Honor? Surely not. In England, it has long been the custom to encourage the medical profession by the selection of a few of its most distinguished members to be the recipients of some time-honored titular distinction — of late years, indeed, such marks of approval have even been more freely showered, and have always met with the most cordial approval on the part of the public, showing the increasing estimate

in which distinguished merit in our profession is now held. We cannot, therefore, but think that a more graceful act could not possibly be performed by His Excellency the Governor General, than the recommendation to Her Majesty to bestow the dignity of Knighthood upon some prominent member of the profession in Canada. He who has been mentioned by our correspondent is the one above all whom we believe every medical man in the Dominion would rejoice to see the first to be thus honored. Dr. Campbell has labored in this country for nearly forty years, during which time he has acquired for himself, as a surgeon, and as a teacher of the Art, an extended American and even European fame. The benefits conferred upon the country by the labors of such a man, to whom every town and country-side in Canada is indebted through the ability and skill of his many pupils, are simply inestimable. In thus honoring Dr. Campbell, honor would be conferred upon the profession of which he is a distinguished ornament, upon McGill University (the pioneer university of Canada), of which he is one of the main supporting pillars, upon Montreal, which has long been proud of his great reputation, and lastly upon the Dominion of Canada, where his name is a household word.

MEDICAL PUBLICITY.

In view of the result of the examination into the facts of the recent vaccination trouble in this city, we cannot refrain from very severely blaming those who followed the unprofessional course of laying directly before the general public that which it was only only fitting should have been submitted to medically educated men alone. One gentleman drew attention to this unusual and improper proceeding at the meeting before alluded to. Dr. Roy rushes into print to earn a short-lived notoriety by directing attention to himself and his wonderful diagnostic discovery. In this he is backed by Dr. Coderre, always ready to

appear when he thinks he has a peg, even the very slimmest, upon which to hang an argument against vaccination, and thus they continue writing long tirades and exciting the public mind by what to the uninitiated appear as the symptoms produced by a deliberate septic poisoning. It is hardly necessary to repeat that these tales thus manufactured — the outspring simply of a disordered imagination — could not bear the light. Every symptom exhibited has been clearly shown to have been due and traceable to causes entirely unconnected with the vaccination, and the result only exhibits either the absence of the knowledge or the appreciation of the simplest clinical and pathological facts, or wilful distortion of the facts as found. As regards the author himself of this unfortunate case, perhaps his youth and inexperience may claim for him an acquittal on the former ground, and as regards the other, who ought to have known better, we can hardly bring ourselves to believe the latter, but suppose he must have been so super-saturated with the prominent idea of the injuriousness of vaccine, that where this is concerned he has lost all power of judgment. None so blind as those who *won't* see.

To publish such cases and discuss such questions in the secular press is an offence against the profession. If the differences of opinion amongst medical men on this point are thus to be discussed why not those of any other? Are there not many other points in medical practice on which there is great diversity of opinion? Is that any reason why one of the minority on any such point should be permitted to air his views, and that in the most offensive manner, in the daily journals?

We hope that the signal disgrace which has befallen Dr. Roy in this his first attempt at publishing his medical observations (?) may serve to prevent his again thus erring against all propriety and professional decency; but his supporter is an old offender in this way and is not so easily reached. It is a matter which should be taken up by the Societé Medicale, and we should be glad to hear that this body had expressed its disapproval in no undecided manner of this breach of one of the best understood rules of Medical Ethics.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Introductory Address delivered at the opening of Session 1874-5, *Medical Faculty, McGill University.* By DUNCAN C. MACCALLUM, M.D., M.R.C.S., England, Professor of Midwifery and Diseases of Women and Children.

GENTLEMEN—In extending a sincere and cordial welcome to those of you with whom they have already been associated as teacher and pupil, as well to those who now, for the first time, enter the classes of this faculty, the Professors would express their confidence that the gentlemanly conduct and devotion to study which have been the characteristics of the medical student of McGill, will be fully maintained by the members of the medical class of this session; and, that the mutual respect and good-will which have heretofore existed between the professors and the students will continue to exist, giving rise as usual to kindly feelings towards, and a warm interest in each other.

There is no other science which includes within its range so many and such varied departments of knowledge as the science of medicine,—its grand aims being the preservation of health and the cure of disease. To further these important objects it has placed under contribution almost all the other sciences, and gathered within itself the most diversified information. Whatever of truthful observation and discovery has been brought to light by earnest investigators, bearing upon the difficult problems involved in the

successful working out of these objects, has been immediately appropriated and utilized, no matter from what source it may have been derived. Coeval with the creation of man, and originating in the dire necessities of his mortality, and in his relations to the forces of the universe, medicine was practised, albeit in a simple and primitive manner, ages before the words and deeds of active struggling humanity were recorded by the historian. Pain, disease and death, we are authoritatively told, became the heritage of man, and to these malign influences his living material being was constantly exposed. Not helplessly, however, for in the intellect with which his maker had endowed him, he possessed the power of investigating phenomena, reasoning upon them and forming conclusions. Thus, by observation and experience, he soon learned what to avoid in order to preserve his health, and more gradually what to apply when his system was invaded by disease. The knowledge, at first limited and scattered amongst individuals, and handed down from one to another, was in course of time increased, systematized and made the special study of a certain class of men. For many centuries medicine remained simply a science of observation. Therapeütics, or the knowledge of the treatment of disease, during this period, was consequently of the most elementary kind. Experimental investigation, to determine the laws of life, their operations in maintaining the normal healthful state of the human economy, and the influences which by disturbing the harmony of their actions produced disease, was, from the difficulties which attended its prosecution, altogether neglected. The religious element in man, which in his unenlightened state led him to attribute disordered conditions of the system to the malignancy of evil spirits whom he deified and endeavored to propitiate by rendering them homage; in later years, and in the light of Revelation led him to consider that disease was caused by the direct and immediate action of the Divine Being. This theological view of disease coupled with, and mainly the result of

a profound ignorance of physiology, long retarded the advance of the healing art.

The introduction of experimental investigation into the study of the sciences which form the ground-work of medicine has thrown a flood of light on the true nature of disease, and dispersed for ever the superstitious view which had previously obtained, replacing it by the higher and nobler view, "that every disordered state is the consequence of definite antecedent conditions, which, under the same circumstances, invariably produce the same results." And it has been by long-continued and carefully repeated experiment that all the brilliant discoveries which have made medicine the noble and elaborate science, which it is to-day, have been accomplished. And still the work goes bravely forward. Earnest enquirers are ever questioning the secrets of nature, and striving to penetrate the mysteries of life. So numerous of late years have been the workers in the fields of Physiology, Pathology and Therapeutics, and so extensive and important have been their successes, that the science of Medicine has been in great part revolutionized. No amount of labor and time has been spared in studying the minute organs and parts of the human body—their condition in health—the influence of various external agents in producing such changes as result in disease—the nature of the changes produced, and the effects of agents in restoring the altered structure and disordered function to their normal and healthy state. The result of all this active and well-directed inquiry is seen in the extensive curriculum of study which is submitted to the student of Medicine of the present day, a knowledge of all the subjects contained in which being considered necessary to enable him to practice his profession usefully and successfully. Notwithstanding, however, the great advances which medicine has made, and the more perfected condition of medical knowledge, it is not now, and from the constitution of things, probably never will be an exact science. In those sciences which deal with lifeless matter, we can generally

trace effects to their causes, and given certain conditions, we can predicate with absolute certainty, certain results. It is not so in medicine. As a rule we have no absolute and unchangeable data on which to base our calculations. The subject we have to deal with is man—a living, organized being—a wonderful and mysterious union of matter, life and spirit. In endeavouring to form an opinion as to the causes of the phenomena of disease we labour under the difficulty that we cannot by experiment accurately determine all the conditions necessary to produce the results which we observe. Numerous disturbing elements, also, are frequently in operation, which must be known and eliminated in order to arrive at correct conclusions. These are found to exist mainly in the differences which obtain amongst individuals as regards physical organization, functional activity, vital energy, nerve force and mental activity. The more thoroughly these differences are studied and known, the better will their value be estimated as disturbing causes, and the less danger will there be in their interfering with correct inferences. That physician, therefore, is the most accomplished and best fitted for the practice of his profession, who, to an extended knowledge of nature, and the forces which operate through and in matter, adds a familiar acquaintance with life processes and the influence of mind upon them. This I assert, notwithstanding the tendency of modern thought to ignore the idea of life and spirit, and to refer all vital and mental phenomena to the operation of physical forces. The philosophic mind at all times has been earnestly directed towards the elucidation of the mystery which involves the subject of the material and the spiritual. The greatest intellectual efforts have been put forth in the attempts made to solve the problem as to what is Mind, Life and Matter ; and, as a result we have had numerous well-reasoned and plausible theories, many wild hypotheses, but nothing as yet which has conclusively overturned the teachings of inspiration. The so-called advanced school of philosophy of the

present day, whose belief recently formulated by Professor Tyndall, "that matter contains in itself the presence and potency of every form and quality of life," is simply striving to invest matter with all the properties of life and spirit. It is passing strange, however, that while they maintain that the deepest mysteries of life are quite explicable by their theories, they cannot give any positive and satisfactory information as to what is the ultimate condition of matter, nor as to how it originated. Matter, say they, when reduced to its elementary state, consists of atoms, which, according to some authorities are round,—according to others are angular. Those holding the latter view must have perceived that if they admitted the globular form of atoms they would be placed in a difficulty. For as rounded bodies when placed in apposition do not touch at every point, interstices are left between them. If then there be nothing in the universe but matter, what occupies the interstices? Many physiologists of this school, while striving to prove that physical forces are sufficient for the production of all the vital processes, evidently cannot divest their minds of the idea that there is a force operating in the human organism which differs in its manifestations from any known physical force. For instance, Professor Lehmann says, "The correctness of the view which ascribes vital phenomena to mechanical conditions cannot be purely tested till the existence of this new force has been proved; but how can such proof be adduced in reference to a force the simplest effects of which are unknown to us, and which differs from other forces merely by its disregard to all restrictions, and of the limits prescribed by physicists to laws? It may be briefly asserted that the exclusion of physical agency affords no proof of a purely vital force, and yet there is no other means by which its existence can be established. The physicist who rigidly follows the leading maxims of his own science, must admit the possibility of a vital force, although he may regard any proof of its existence as at present impossible."

Now this is virtually conceding the difficulty of investigating and explaining the connection of life with, and its influence over, matter, and also, that the physical forces so far as they are known do not suffice to explain life processes—that although they enter largely into their production, there is beyond them, and distinct from them, another dynamical agency which is essential to the manifestation of vital phenomena.

Let us not, gentlemen, be unduly influenced by the specious theories of eminent men. The great object of the studies which will engage your attention is to conserve life. The term *life*, conveys to the mind of the physician the idea of a condition distinct from that of any physical force, or any combination of physical forces. It is, in his estimation, that *something* in man to which other forces are subordinate, and which makes the difference between the animated body that moves, breathes, thinks, and speaks and the dead inanimate form in which physical agencies have unrestrained operation.

As regards the existence of a spirit in man, allow me to quote what I have already said on another occasion :— That there is within us something which *thinks* and *wills*, and that it can exercise these faculties independently of influences, *ab extra*, will, I think, be conceded by all who have bestowed any—even the slightest attention to the operation of their own mind. It is no less certain, I conceive, that in the present state of existence, relations of the most intimate nature exist between this thinking immaterial spirit and organized matter. Indeed, so necessary to memory and a conscious existence does this connexion appear, many distinguished immaterialists have supposed that at death the soul takes its departure from the body in a subtle material vehicle ; this vehicle having been its seat while it remained in association with the material body of the man. The most noted modern philosophers who have held this opinion were Wollasten, Hartley, Cudworth and Clarke. The Pythagorans and Platonists taught it among

the ancients. The mind, from the nature of its relations with nerve force, may be looked upon as one of the dynamical agencies which are capable of acting on matter. This view is not inconsistent with the idea of its being an entity essentially distinct from the material substratum through which it manifests itself. Nor does it suppose an identity between it and any of the other forces. It merely expresses that mental power is one link in that chain of forces which operate throughout the material part of the universe. Por this force does not act blindly, as the other forces, which produce the same effects, all other things being equal, when called into action. There is associated with it a *self-determining power* or *will*, which may, indeed, be suspended, but which acts independently of, and frequently in direct opposition to, all promptings from without. The suspension of this *volitional power*, which is one of the strongest proofs of its existence, is seen in cases of somnambulism, and that peculiar state into which a person is thrown when he is said to be "biologized," or "mesmerized." In these conditions the mind acts automatically, following out those trains of thought, and those only, which are suggested to it from without. Nervous energy is the intermediate force between the various physical and vital forces on the one hand, and the psychical force on the other. It has been arranged by the all-wise Creator that the energy of the nerves of special sense shall be excited by certain modes of force, and that the changes which the impressions made on the vesicular matter, when transmitted to the cerebrum, shall excite psychical action, and perceptions differing in kind result therefrom. Thus light, so long as it is present, excites the energy of the optic nerve—sound or motion, that of the auditory nerve, taste or motion that of the gustatory nerve, and so on. And we know that it is through these channels, as well as through the nerves of common sensation, that the mind acquires one class of perceptions, the perceiving power being a manifestation of psychical force. From what is

observed in cases where one or more of the senses are wanting, as in the congenitally blind or deaf, we have evidence of the importance of innervation to the development of psychical power. It is quite conceivable that if the functions of the nerves could not be called into operation in a human being born into the world with a nervous system complete, there would be no manifestation of mind, not on account of the absence of the *divinæ particula auræ*, but from the want of that force by which it maintains its relations with the external world.

The question might properly be asked—"If mind be one of the dynamical agencies which operate through matter, what becomes of it when the material substratum through which it acts is so altered as to prevent its manifestations or in other words, when death ensues?" There is a point in all enquiries relating to mind, beyond which, man's unaided reason cannot penetrate. "Hitherto shalt thou go, and no further," is the inexorable decree. I would answer the question thus: Mind, in its present association with matter, may be studied in its relations with nerve force, and through it, with the various other forces which operate throughout the material part of the universe; but the determination of its *nature* and *destinies* cannot be arrived at by mere scientific investigation. The Creator of mind, as well as matter, has said, however, "Then shall the dust return to the earth as it was; and the spirit shall return to God, who gave it."

Whence are these forces, and what are they? By the Pantheist they were said to be the rhythmic development of the soul of the universe; by the more modern Materialist they are considered to be the powers and potentialities which inhere in matter. Inasmuch as these views ignore the existence of a personal ever-governing intelligence in the universe, they are opposed to the sublime dogma of a revealed and eternal Deity.

Force is, doubtless, an emanation from the Divine will, which operating through various forms of matter, manifests

itself in heat, light, electricity, gravitation, growth, nervous force, &c., as the case may be. Here we recognise the omnipresence of the Deity—that all-pervading Divine agency, which sustains the life of the minutest animalcule, as well as the highest and most complex animal; which causes the sun to shine, the rain to descend, and vegetation to spring forth; which clothes the tree with luxuriant foliage, and tints the flower with beautiful hues; which marks out the path of the planets, and regulates the succession of the seasons. In the wonderful adaptation of means to ends, observable on every hand, the universe proclaims the existence of a governing *intelligence*, which has arranged all, and which supports all, and thus furnishes important proof of the personality of the Supreme Being.

"My belief is," says the Rev. Professor Haughton, "that there is but one kind of force in existence, and that is the volition of God, acting according to fixed laws, and once for all set in motion at the creation of the world."

These momentous questions are being keenly discussed and are agitating the minds of scientific men at the present day; and as they are intimately connected with the sciences which form the foundations of medicine, I have thought it advisable to give them this brief notice.

The science of medicine, gentlemen, in its present advanced condition, with all the additions that have been made to it in recent years, is certainly one of the most difficult studies that can engage the attention of man. But with all its difficulties, it is a deeply interesting study, one which is eminently fitted to expand the intellect and strengthen the mental powers. At first, doubtless, the dry details of the elementary parts are apt to prove tedious and irksome, and may even damp the ardour of the most enthusiastic student. But when these are thoroughly mastered, and an advance made to wider and more comprehensive subjects—when the interdependence of the different parts and their relations to each other are perceived—when the knowledge acquired is submitted to practical application,

and its value in the investigation and treatment of disease begins to be appreciated, the study becomes invested with the greatest interest, and its pursuit affords the highest gratification and pleasure to the student. The first Collegiate Session, then, is a critical one to the student of medicine. By the way in which he applies himself, and by the work which he accomplishes, it can be readily determined whether he will prove a success or a failure. It is generally admitted that success in any great aim or object in life is seldom the result of fortuitous circumstances. It is true that we hear a good deal said about lucky or fortunate persons, by which is often implied that whatever desirable position an individual may occupy amongst his fellows, has not been acquired by his own abilities and his own steady and persistent labour, but has been the result of chance events, over which he had no direct guidance nor control. The truly successful men, however,—the men who really do the work of the world are those who know what they have to do, and do it. The procrastinating, hesitating waiter on something to turn up—the fickle, restless seeker of brilliant and promising chances never accomplish anything worthy of note. After years of vain and fruitless anticipation, or spasmodic and misdirected effort, they lapse into disappointed men, who rail at the world and all it contains, because of their want of success, not seeing that the want was altogether in themselves. Failure, on the other hand, is not always the result of deficient mental capacity. It is not uncommon to meet with men possessing more than average brain power, who have never succeeded in doing anything for themselves nor for others. They may have the great pre-requisite of success, a powerful, or even brilliant intellect, nevertheless they become utter and hopeless failures. Truly, "the race is not always to the swift, nor the battle to the strong."

To succeed in your studies you should enter on them with courage and with a firm determination to overcome every difficulty; and if this determination be supplemented

by continuous and methodical work, there can be no question of failure. There will be times when wearied and fatigued you may give way to despondent feelings and if you be not strictly on your guard there exists a danger that you may either become careless and indifferent or give up study altogether. Rather than this it would have been better had you never commenced the study ; for, as Lord Bacon observes, "a man is an ill husband of his honour that entereth into any action, the failing wherein may disgrace him more than the carrying of it through can honour him." It is not necessary, moreover, to apply yourselves so closely and unremittingly to study as to seriously encroach on the time required for rest and bodily exercise. By so doing you may induce disordered states of the system ; and, it is beyond doubt that diseased conditions of the body react with varying degrees of intensity on the mental processes. You may thus be rendered incapable of accomplishing as much work as if you were in perfect health. In the language of Shakespeare "the body and the mind are like a jerkin and a jerkin's lining—rumple the one and you rumple the other." If you consider the extensive ramifications of the nervous system and the important part which it takes in all the vital actions—its subservence at once to the higher mental operations, and to what we regard as the simplest and least important of the functions performed by the economy, you will readily understand the workings of the laws of sympathy, and why man's nobler part should be so much influenced by deviations from the physiological conditions of the meaner organs—those which are concerned in the building up and sustentation of his physique. The most distant parts of the periphery are united by nervous mediation with the cerebrum the admitted organ of the mind and the seat of reason. Strange as it may appear, nevertheless daily experience proves its truth, our feelings of pleasure or pain, happiness or misery, contentment or dissatisfaction, &c., depend, in a measure, upon the healthy performance of the functions of the diges-

tive system. It was remarked by Dr. Samuel Johnson, and few that have felt the pain he refers to will be inclined to disagree with him :—" that a sudden pang of the tooth-ache would render a man utterly indifferent to the most sublime strains of poetry, put to flight the most subtle train of metaphysical reasoning, and cause him to turn away from the most beautiful spectacle."

The great essential for success, then, in this as in any other study, is *work*—steady, well arranged, persistent work. A knowledge of medicine does not come to any man intuitively. There are no heaven-born physicians. Be constant in your attendance on the different lectures and weekly examinations, and while in the class room let your whole time be devoted to listening to and taking notes of the lectures. You can certainly make your mark in a far more honorable way than with a penknife on a deal board.

" Reading," says Bacon, " maketh a full man " ; and superficial indeed would be your knowledge of your profession did you not read carefully and thoughtfully standard books on the different subjects taught in the lecture room. But above all, do not neglect hospital attendance. Clinical study is peculiarly adapted to give you just ideas of the physiognomy, nature and treatment of disease. It will induct you into habits of rigid observation and famialiarize you with investigations into diseased conditions. You will thus be prepared to enter on active practice with a confidence which will be exactly proportioned to the attention you may have bestowed on clinical investigations and bed-side studies. By reading and by attendance on lectures you may certainly acquire a very fair knowledge of what has been written on the pathology, causes, symptoms and treatment of disease ; but if you neglect the opportunity which a hospital affords of practically applying and testing that knowledge at the bed-side, you will seriously compromise your chances of ever becoming accomplished and safe practitioners of the art of medicine. For in the wards of a hospital you meet with disease as it really manifests itself, not usually exhibit-

ing those clearly defined characters which are laid down in books as distinguishing individual diseases, but so modified by various circumstances and complicated by the presence of other diseases that long and patient application can alone give a facility in forming correct diagnoses.

In conclusion, gentlemen, consider seriously the great responsibility which attaches to the practice of medicine. To your knowledge and skill will be entrusted dear and valuable lives. If you be ignorant and incompetent, your patient may succumb to an attack not necessarily fatal, while, on the other hand, if you be competent and possessed of the proper knowledge you may by your treatment turn the vacillating beam of life in his favour and snatch him from impending death.

In view of this responsibility, then, and while the opportunity presents, strive earnestly to obtain a thorough knowledge of your profession ; and rest assured that your efforts will receive the active sympathy and assistance of your professors, who, in all truth and honesty, sincerely wish you God-speed.

A Case of Poisoning by Opium.—Recovery. By Geo. Wood, M.D., C.M., Fairbault, Minn. U.S.

On the night of Nov. 26th, 1873, I was called, at half-past eleven o'clock, P.M., to see Mrs. D., who had taken 40 grains of the Sulphate of Morphia, together with an ounce of Laudanum, which she had in her possession. She had been in a desponding state of mind for some little time, and had resolved to destroy herself, so she stirred the ingredients up in a little cold water, in a tea-cup, and having drunk the potion, she went to bed, at a quarter to eleven, P.M.

A servant girl, who slept in the same room, imagined that Mrs. D. was ill, "she snored so," and tried to awake her, but could not do so, and immediately called her sister-in-law, who also tried to arouse her, without avail. The

sister-in-law called in a gentleman of the Homœopathic School, who in turn tried to arouse the patient, but without success. I was then sent for, and first saw the patient at half-past eleven, P.M. She was then very drowsy, and there was marked stupor ; the pupils were contracted almost to a "pin's point," and she lay quite motionless. It was possible to arouse her slightly, by shaking her, and calling loudly in her ear, but she relapsed at once into insensibility. The breathing was labored, and the pulse slow and full, skin moist and covered with a clammy perspiration. The peculiar smell of opium was recognized at once on entering her apartment.

I, at once, gave her an emetic of pulv. Ipecacuanhae, oz. js. in combination with Extr. Stramon. fld. min. xv. Emesis at once took place, and I then thoroughly drenched the stomach with enormous quantities of warm water, and gave brandy and coffee very liberally. In addition, the extremities were diligently rubbed, and the patient obliged to make forced marches of several hours duration round the room. My efforts were happily successful, and the patient is now thoroughly well.

In this case there are three points of interest:

First.—The immense dose of morphia taken.

Second.—The happy effect of the Stramonium in aiding the effect of the emetic.

Third.—The complete recovery of the patient without a single bad symptom.

Secondary Operation for Malignant Disease, involving the Superior Maxillary Bone. By R. P. Howard, M. D., F. R. S. E., Prof. of Medicine, McGill University.—Reported by J. D. Cline, B.A., M.D., House Apothecary.

J. McG., æt. 37, was sent into Hospital, August 27th, by Dr. Howard for the removal of an extensive cancer, involving the bones of the side of the face, which had recurred after excision of the Superior Maxillary. This first opera-

tion was performed by Dr. McLean of Ann Harbour University, in February last, and the disease was pronounced cancerous then. After the operation a tumour began to be developed under the left eye very rapidly. It attained its present size, about that of a walnut, in three weeks. His condition on admission to the Hospital was as follows : Externally was this tumour immediately under the left eye, with the integument over it bluish, but not adherent. The cicatrix after the incision of the first operation was bluish, extending up the mesial line of the upper lip, covering the ala of the nose up towards the inner angle of the eye, and thence running horizontally across the cheek ; this latter part corresponding with the lower border of the tumour. Internally there was absence of the Superior Maxillary bone, the whole of which had been removed, with the exception of the nasal process, but this side of the cavity of the mouth was much contracted, and filled with hard nodular excrescences. By the matting of the muscles the jaws could not be opened more than three quarters of an inch. The patient suffered from a constant dull aching, with an occasional pain of a lancinating character. His general health was good. He was a stout, hardy countryman, and a splendid subject for operation.

The Operation.—After the administration of Chloroform, Dr. Howard proceeded to operate in the presence of the Medical staff of the Hospital. He made his incision from the inner angle of the eye directly across the tumour, well over the malar bone, and dissected the integument from the tumour upwards and downwards. He then made the vertical incision along the base of the nose round the ala of the nose and down the mesial line of the lip, by which incision he entered the cavity of the mouth. Then freeing the cicatrix from the base of the nasal process of the maxillary he dissected out the mass of the tumour, and reflected the large flap well up on the malar bone with a Hey's saw ; he now cut through the malar bone near its articulation with the zygoma and the angular process of the frontal bone,

and removed its deep attachments by the bone pliers. He then proceeded to remove part of the palatal process of the right maxillary by extracting the two incisor teeth of the right side, sawing through the alveolar process, and dividing the hard palate by bone pliers, as well as the lower half of the vomer. He also removed part of the nasal process and the laclorymal bone. He then carefully dissected out all the suspicious-looking fibrous tissue around the sides of the great hole that was thus made, also scooping out as much as possible of the cells of ethmoid in which direction the disease seemed to extend. No vessel had to be ligatured though there was great general oozing which was checked by sponging with Liq. Ferri Perchlor. Dr. Howard now stuffed the hole with lint saturated in carbolic oil, 1 to 20, and sewed the flap up using silk all round, with harelip needles for the incision in the upper lip.

Condition after the Operation. — The external wound healed by first intention. The suppuration was very great from the internal surface, the fetor from it being well corrected by the carbolic dressing. On the third day after the operation some slight erysipelas appeared on that side of the face, and for a few days came and went in different parts in the neighborhood of the wound, but was easily checked by the application of a lead lotion. There was very little constitutional disturbance, which is surprising after such a serious operation about apparently so delicate a part of the body. About a week after the operation, noticing a somewhat suspicious appearance of the granulations along the edge of the palatal plate, which were large, soft and fungous, Dr. Howard clipped them off. He found that the bone was not involved as he had feared.

Now, about four weeks after the operation, the process of healing inside the mouth is progressing very satisfactorily. A great deal of contraction may be expected to take place yet. The greatest inconvenience which the patient experiences is inability to articulate by reason of the large communication between the mouth and nose. He has, however,

made arrangements with a clever dentist in the city to remedy this by a plate of gutta percha to form an artificial roof for his mouth. It is a very interesting case for such an attempt and presents difficulties which will try the dentist's skill. His success, however, in which I have no doubt, will prove to the Medical profession what is very important, namely, the amount of aid which surgery can derive from the mechanical skill of the dentist.

HOSPITAL REPORTS.

Surgical Cases occurring in the Practice of the Montreal General Hospital.

Under the care of D. C. MacCallum, M.D., M.R.C.S., England, Prof. of Midwifery and Diseases of Women and Children, McGill University. Reported by J. D. Cline, B.A., M.D., House Apothecary,

Two Cases of Strangulated Inguinal Hernia. A Frenchman, 36 years old, was brought into the Hospital, about 10 o'clock one evening. The man had a hernia which had been strangulated for 38 hours. Three or four surgeons outside had made four different attempts to reduce by taxis, keeping it up for about an hour each time, and had failed. Chloroform had been administered once. Ice and linseed poultices had been applied at different times. The patient was in a weak and distressed condition, almost in a state of collapse when admitted. The hernia was very large and tense, extending into the scrotum, and the constriction very tight throughout the whole extent of the inguinal canal, but especially at the internal ring. The man had rejected everything that had been given him through the day, but had no stercoraceous vomiting.

On admission, ice was ordered to be applied and Morph. Sulph. gr. $\frac{1}{2}$ was given dry on his tongue, and Drs. Mac-

Callum and Roddick sent for. On their arrival in about half an hour they tried taxis very gently under chloroform, but soon desisted knowing the handling which it had received before, and proceeded to operate. On getting down to the sac, they found that the stricture was in a great measure in the sac, and accordingly determined to open it. On doing this a considerable quantity of clotted blood escaped, which must have come from some vessel which was ruptured, apparently by the excessive handling which the parts received when in a state of congestion. The gut was very much congested. There was a small piece of omentum in the sac. On dividing the stricture the gut readily returned. The external wound was closed with stitches and a pad applied with a spica bandage. In the morning the patient was very weak; his pulse small and rapid. There was a good deal of tympanites, and considerable tenderness in the region of the operation. He was ordered Pulv. Opii. gr. i. every three hours, and if getting worse, every hour. He became steadily worse, the tenderness spreading over the entire abdomen. By 4 P. M. his pulse could not be felt. He had not been able to retain anything in his stomach all day. He died at 9 P. M., about 22 hours after the operation. There was no autopsy. The obvious cause of death was Peritonitis superadded to the collapse from which he never emerged. There can be no doubt that the repeated and severe manipulations to which the hernia was subjected, was in a great measure the cause of the rapid inflammation, apart from the incision into the sac; at least the condition must have been one in which the membrane would be much more liable to inflammation. Another element in the causation of the inflammation may have been some hæmorrhage from the ruptured vessel which had bled before, after the relief of the stricture.

The other case was that of a Frenchman about 60 years old, who was brought to the Hospital at 12 o'clock, suffering great agony, having a strangulated hernia of immense size. The hernia was an oblique inguinal on the right

side, occupying the scrotum and distending it greatly. The scrotum hung about nine inches. The accident occurred about 9 o'clock in the morning. It was an old hernia, but had never been strangulated before. By percussion it was found that a large part of the contents of the sac was omentum. An attempt at taxis outside, without the aid of chloroform, had failed. After the administration of chloroform, Dr. MacCallum succeeded, not without great difficulty and perseverance, in reducing it. An obstacle was the great difficulty in bringing the patient fully under the influence of the anæsthetic, so as to relax the abdominal walls. A pad with spica bandage was applied, and in a couple of hours after a sleep the patient went home.

Compound Fracture of Forearm.—A useful limb resulting. I. M., aged 16, on the 25th of July, met with an accident in a tobacco factory, by which both bones of the forearm were broken, the radius protruding through a large wound in the back of the arm. The wound extended entirely across the posterior aspect of the arm, down to the bone through the deep layer of muscles. The torn fragment of the radius protruded about an inch and half. Fortunately the large vessels in front of the arm were not injured and the circulation in the hand was perfect. Dr. MacCallum put up the arm in an anterior splint and applied carbolic lotion by irrigation to the wound, having first cut off about one and one-fourth inches of the radius which was protruding, taking care to strip up the periosteum. After a couple of weeks a simple dressing with carbolic lotion was substituted for the irrigation. By this time the granulations had closed nicely over the ends of the bones. In six weeks the wound had entirely closed and the ulna fairly united. The boy now left the Hospital and comes up occasionally to show the arm. The radius is rapidly consolidating. He has perfect power of flexion and extension in his fingers and wrist, and will have a very useful arm, notwithstanding the impairment of the movement of rotation

which there will be. Throughout the whole time there was very little constitutional disturbance.

Ligature of Anterior Tibial for Wound.—F. D., 38 years old, carpenter by trade, inflicted a wound on the front of his leg about five inches above the ankle with an axe. The hæmorrhage was great from the division of the anterior tibial artery. The accident occurred on a Friday morning. He was seen by a surgeon who applied a compress and several layers of bandage very tightly over it. On Saturday evening, about 36 hours after the accident, he came to the Hospital. The whole bandage was saturated and stiff with blood which had been oozing through it constantly. Dr. MacCallum having arrived about 10 P. M. removed the bandages when the blood spurted out as freshly as ever. The wound was about three inches long extending obliquely upwards and inwards. The hæmorrhage being controlled by pressure on the femoral artery, the wound was extended upward about three-quarters of an inch when the ends of the vessel were very easily discovered, being engaged in the clot which filled the wound. A ligature was applied to the two ends and carbolic lotion ordered. Next day a large slough formed all around the wound evidently caused by the pressure of the hardened clot and compress which had been so tightly applied. Linseed poultices were now applied till this slough had separated, and then a chloral wash 1 to 50 was applied. The wound is now granulating nicely. The ligatures separated in about nine days without any return of hæmorrhage. This case shows the folly of trying to control the bleeding from a vessel as large as the anterior tibial by pressure. If the ends of the artery had been secured in the first place the man would have been confined only a few days, whereas now it will be a matter of several weeks, there being quite a large ulcer to granulate.

There are also under the care of Dr. MacCallum two very interesting cases of paraphimosis from inflammation. Both the men had soft chancres, with a good deal of in-

flammation about the prepuce, which in both were rather long. Having got the prepuce back they were unable to draw them over the glans again. The stricture in both is about three-quarters of an inch behind the corona glandis, corresponding with the opening of the prepuce. In both cases when they came to the Hospital the stricture had been relieved by sloughing, so that nothing was to be done but to relieve the inflammation by local applications.

Excision of Fibrocystic Tumor. — On Saturday, Sept. 19th, W. S., aged 45, came to Hospital with a large tumor on his leg occupying Scarpas triangle. The tumor was very dense, except in one or two spots where fluctuation could be made out. It was very immovable, being bound down by the fascia lata, and bounded above by Poupart's ligament. The tumor had begun to grow three years ago, but had not caused any inconvenience until lately, when its bulk interfered somewhat with his walking. The patient experienced a sensation of numbness sometimes in his leg. The pulsation of the arteries below it was not quite so strong as in the opposite leg, yet the circulation was not seriously interfered with. Within the last six months it had grown more rapidly than before. Dr. MacCallum operated on Saturday, making an incision about nine inches long, over the tumor, a little outside of mesian line so as to avoid the saphenous opening with all its veins: when he got down to the sac of the tumor, he effected the dissection of the integument and fasciae by his fingers. The sartorius muscle was spread over the tumor and closely adherent. It was cut at each end of the tumor which was then easily enucleated. The femoral artery was seen pulsating immediately under. The wound was closed by stitches and a compress applied to keep the deeper parts of the wound in apposition, and carbolic solution used as a dressing. Six hours after the operation the patient was very comfortable, his pulse being only 56. On Monday, still progressing favorably. No fever.

Correspondence.

To the Editor of the Canada Medical and Surgical Journal.

Sir,—It seems to me that there is a great want of organization amongst that large and very useful class of women in Montreal, the female professional nurses, which proves very inconvenient to those requiring them, and unprofitable to the nurses themselves. I do not know that there are any professional male-nurses in the city, although I have no doubt that a few could find pretty constant and lucrative employment. The total number of trustworthy female nurses finding employment in this city is, I believe, pretty large, and of these a certain section only is employed by each practitioner. It is not an uncommon complaint from friends of patients, that after getting a long list of addresses from their family medical attendant, they have to travel for hours, often at most inconvenient seasons, before they can find a suitable nurse disengaged. The out-of-the-way places where they have to go for nurses, too, is complained of; but if it is disagreeable to reach these places, how much more so must it be for this worthy class of people to live in them. A gentleman of my acquaintance lately went in search of a nurse, and after going to the dwellings of about twenty, failed to find one disengaged, and he recommended any one who wished to know Montreal as it is, to undertake a similar task.

Would the Journal not suggest some plan for the remedy or amelioration of this state of affairs? Would the nurses not attempt some system amongst themselves? Might not some place be selected where nurses could leave their addresses, recommendations and information as to engagements, all of which would be not only convenient for those needing nurses, but also insure more constant employment to those availing themselves of this plan? Might not some comfortable "Nurses' Hall" be established where those

temporarily disengaged would find a pleasant home, at a reasonable price, instead of requiring to keep constantly for themselves rented rooms, often uncomfortable and ill suited to their tastes. In some such way as this the greater comfort of nurses and the convenience of the public might be secured. But who is to take the matter in hand?

The subjects of training and qualification are matters which might well be taken up, after some system of organization had been established in the *corps* of well-trained and qualified nurses which already exist in our midst.

I am, etc.,

BETA.

Periscopic Department.

MEDICINE.

On Ipecacuanha Spray in Winter Cough and Bronchitic Asthma. By Sydney Ringer, M.D.; and William Murrell.

The successful use of a secret remedy by a well-known practitioner induced us to try the effect of inhalation of ipecacuanha spray. Our results have been so satisfactory that we desire to draw the attention of the profession to this mode of treating these obstinate complaints—winter cough and bronchial asthma. Our observations were made during January and February. Whilst under this treatment the patients took only coloured water, and continued their usual mode of living in all respects.

We shall first refer to winter cough. We have made observations on twenty-five patients, whose ages varied between forty-five and seventy-two, with one exception—that of a woman of thirty-two years. We purposely chose severe cases. In order to avoid burdening this paper with too much detail, we give here a typical case, which will serve in most points to illustrate the condition of the patients. Subsequently we shall report two actual cases in full.

The patient has been troubled with winter cough perhaps for many years. During the summer he is pretty well; but during the cold months, from October to May, he suffers sometimes without intermission, occasionally getting a little better and then catching cold; or perhaps he may lose his cough for a few weeks, but again take cold on the slightest exposure. So short is the breathing that he can walk only a few yards, especially in the cold air, and finds it hard work to get upstairs, and is often quite unfitted for active life. The breathing grows worse at night, so that he cannot sleep unless the head is propped up with several pillows. He is troubled, too, with paroxysmal dyspnœa, usually at night, which may last several hours, and compels him to sit up. Sometimes the breathing is difficult only on exertion; and in those cases it is made much worse by fogs, east winds, or damp. The expectoration varies greatly; in a few cases there is very little; usually, however, it is rather abundant, and consists of mucus or pus, often with little or no rhonchus in the chest. It is often difficult to expel the expectoration. The cough is generally very violent, frequent, hacking, and paroxysmal, and the fits may last ten or twenty minutes and even excite vomiting. They are generally brought on by exertion; nay, in bad cases so easily are they provoked that the patient is afraid to move or even to speak. The cough and expectoration are much worse in the morning on waking. Sometimes the cough is slight, and then the expectoration is generally scanty, the distressed breathing being the chief symptom. The patient generally wheezes badly, especially at night, and in a bad case the legs are swollen. The patient is emphysematous; there is often no rhonchus, or only sonorous and sibilant or a little bubbling rhonchus at both bases.

In this common but obstinate complaint our results have been very striking, although in many of our patients so bad was the breathing that, on being shown into the out-patients' room, they dropped into a chair, and for a minute or so were unable to speak, or only in monosyllables, having

no breath for a long sentence. We used the ordinary spray-producer, with ipecacuanha wine pure or variously diluted. On the first application it sometimes excites a paroxysm of coughing, which generally soon subsides, but if it continues a weaker solution should be used. The patient soon becomes accustomed to it, and inhales the spray freely into the lungs. At first a patient inhales less adroitly than he learns to do afterwards, as he is apt to arch his tongue so that it touches the soft palate, and consequently less enters the chest than when the tongue is depressed. The spray may produce dryness or roughness of the throat, with a raw sore sensation beneath the sternum, and sometimes it causes hoarseness; whilst, on the contrary, some hoarse patients recover voice with the first inhalation. As they go on with the inhalation, they feel it getting lower and lower into the chest till many say they can feel it as low as the ensiform cartilage.

The dyspnœa is the first symptom relieved. The night after the first application the paroxysmal dyspnœa was often improved, and the patient had a good night's rest, although for months before the sleep was much broken by shortness of breath and coughing. The difficulty of breathing on exertion is also quickly relieved; for often after the first administration the patient walked home much easier than he came to the hospital, and this improvement is continuous, so that in one or two days or a week the patient can walk with very little distress, a marked improvement taking place immediately after each inhalation; and although after some hours the breathing may again grow a little worse, yet some permanent improvement is gained, unless the patient catches a fresh cold. We have heard patients say that in a week's time they could walk two miles with less distress of breathing than they could walk a hundred yards before the spray was employed. In some instances two or three days' daily spraying is required before any noticeable improvement takes place, this comparatively slow effect being sometimes due to awkward inhalation, so that but little ipecacuanha passes into the bronchial tubes.

The effect on the cough and expectoration is also very marked, these both greatly decreasing in a few days, though the improvement in these respects is rather slower than in the case of the breathing. Sometimes for the first few days the expectoration is rather increased. It speedily alters in character, so that it is expelled much more readily, and thus the cough becomes easier, even before the expectoration diminishes.

Treated in this way the patient is soon enabled to lie down at night with his head lower, and in a week or ten days, and sometimes earlier, can do with only one pillow. This improvement occurs in spite of fogs, damp or east winds—nay, even whilst the weather gets daily worse, and when the patient is exposed to it the chief part of the day. All these patients came daily to the hospital. Of course it is much better to keep the patient in a warm room.

Here are short notes of two cases, the first a very successful one.

J. H——, aged seventy-two, has had a winter cough for the last three years. The cough comes on in fits, and is very bad at night. Fogs greatly aggravate it. She spits about a teacupful of thick yellow phlegm in the twenty-four hours. So bad is her breath that she cannot lie down at night, but is propped up with pillows, and is always wheezing. She is obliged to stay at home for weeks together. Her lungs are emphysematous, with only sonorous râles. After the first inhalation there was great improvement—freedom from cough all night, with much easier breathing. Further improvement took place after the next day's inhalation, and still more after the third, so that on the sixth day of treatment, and after three inhalations, she reported that her breathing "was not near so troublesome; thinks nothing of it now; does not spit up half as much," and the expectoration is white and frothy. This poor woman was loud in her praise of the treatment; said she "never expected it," and "when first she came to the hospital thought she should never get about again." J. H—— is now suffi-

ciently recovered to take charge of a shop, though before her attendance at hospital she had not been out of her room for four months. She was discharged, and called a month afterwards to say there had been no relapse.

Now comes a less tractable instance, a fair specimen of one of the more obstinate cases.

M. A——, aged thirty-two, came to the hospital January 29th with a winter-cough of many years' standing, and worse this winter than ever before. The cough is paroxysmal, the slightest exertion, even talking, bringing on an attack. The paroxysms vary much, but generally last ten minutes. In the twenty-four hours she spits about a teacupful of thick yellow phlegm. Extremely short-breathed, and she is quite unable to do her house work, and at night is unable to sleep unless propped up with three pillows and a bolster. The breathing always gets worse at night. Fogs increase all her troubles. Has been hoarse for weeks, and if she talks much she altogether loses her voice. Her chest is very sore with coughing. She is emphysematous, and her breath-sounds are obscured by cooing râles.

Feb. 3rd.—The patient, who has had an inhalation on five successive days, now says she is in every way much better. The breathing is much easier; the cough is not nearly so violent; her chest is less sore; the expectoration is much less; and there is very little hoarseness.

6th—The inhalations have been continued daily. The patient says she is better than she has been all the winter. The improvement in her breathing is very great and she can now do with only one pillow at night instead of three. She sleeps much better. The cough is greatly improved, and instead of being "aggravated" towards night, is now better at that time. Expectoration has almost ceased.

10th.—Has had only one inhalation since last date, and her breathing has been a little more distressed.

12th.—Has had an inhalation daily, and the dyspnœa has again nearly disappeared.

17th.—Has had but one inhalation since last date. The

cough now has almost left her, and she often goes twelve hours without a fit. Her breathing is so much better that she now does her own house-work, and is not propped up at night.

Discharged after ten inhalations and nineteen days' treatment.

A month afterwards she came to the hospital to say that her breathing was all right, and that she had been perfectly well since her discharge, with the exception of a slight hacking cough.

All but one of the twenty-five patients were benefited. In one case the improvement was very gradual, but there was evident temporary improvement after each inhalation. In twenty-one cases the average number of inhalations required was 9·4, and the average number of days was twelve, before the patients were discharged cured. The greatest number of inhalations in one case was eighteen, and the smallest three. The case longest under treatment required twenty-four days ; the shortest, four.

In employing the ipecacuanha spray, in order to ensure as far as possible only its topical effects, we were careful to direct the patient to spit out and even to rinse out the mouth at each pause in the administration, for a much larger quantity of the wine collects in the mouth than passes into the lungs. If this precaution is not adopted, sometimes enough is swallowed to excite nausea and even vomiting, by which means the bronchial mucus is mechanically displaced, and of course in this way effects temporary improvement. Even when this precaution was observed, a protracted inhalation will excite nausea and sometimes vomiting by the absorption of the wine by the bronchial mucus membrane ; though, strange to say, when thus induced, vomiting was long delayed, even for several hours—nay, sometimes not till the evening, though the inhalation was used in the morning. In the reported cases, however, improvement was not due to the nauseating effects of the spray, for we took care to avoid this contingency by

administering a quantity inadequate to produce this result. The duration of each inhalation will depend on the amount of spray produced by each compression of the elastic ball, and on the susceptibility of the patient to the action of ipecacuanha. As a rule, the patient at first will bear from twenty squeezes of the spray without nausea, and will soon bear much more. After two or three squeezes, especially on the commencement of the treatment, we must pause a while. It is necessary to look at the patient's tongue and tell him to learn to depress it, for if the tongue is much arched it will hinder the passage of the spray to the lungs. It is a good plan to tell the patient to close his nose with his fingers and to breathe deeply. The inhalation should be used at first daily, and in bad cases twice or thrice in the day; afterwards every other day suffices, and the interval may be gradually extended. If the ipecacuanha wine is diluted, then the spray must be used a longer time. In cold weather the wine should be warmed.

We have tried the spray with very satisfactory results in a few cases of the following more severe though closely allied disease:—A patient for several years has suffered from severe winter cough, with much dyspnœa, cough, and expectoration; and on several occasions has spat up a considerable quantity of blood. The physical signs denote slight fibroid consolidation, with excavation of both apices, and much emphysema, perhaps atrophous in kind. There is little or no rhonchus, and no fever. The expectoration may be slight or very abundant, muco-purulent or purulent. The dyspnœa is, perhaps, very severe; and is so paroxysmal as to justify calling the case bronchial asthma, with emphysema, and fibroid phthisis. In these cases the ipecacuanha spray is almost as beneficial as in the preceding. It soon controls the dyspnœa, thus enabling the patient to sleep, and greatly lessens expectoration and cough; and by these means really improves the general health. As in the previous cases, the first inhalation may considerably improve the breathing, though the effects are not so permanent, the

dyspnœa returning in the evening; so that spraying is needed night and morning, and may be necessary for weeks or months, the ipecacuanha appearing rather to give relief than to permanently cure the dyspnœa.

We have used the spray in two cases of true and severe bronchial asthma, with very opposite results. In one severe case, accompanied by a great deal of bronchitis, it gave very great relief. The other patient, not so ill, has been all his life asthmatical; and on catching even a slight cold his breathing becomes greatly oppressed. In this instance each application of the spray considerably aggravated the dyspnœa, even when the wine was diluted with an equal quantity of water. Possibly a still weaker solution might have been borne; but we are inclined to think that in this case any quantity of ipecacuanha would have disagreed, as the tightness of breathing increased almost immediately the inhalation was begun.

The successful case was a very severe one. For years this woman had suffered from bronchitic asthma, and when she applied to the hospital was unable to lie down owing to shortness of breath. She suffered also from violent paroxysmal dyspnœa, the worst attack beginning about three A.M., compelling her to start out of bed and struggle for breath. She was very emphysematous; her voice was very hoarse. The first inhalation removed the hoarseness, and much improved her breathing, which continued freer till midnight, when the dyspnœa returned. The cough was eased, and she expectorated more freely. Each inhalation always gave her very great and marked relief. She walked to the hospital with great difficulty, and was constrained to stop frequently. On entering the room she could not speak, but laboured violently and with loud wheezing to get her breath. A few inhalations would gradually set the breathing free, so that the air entered more and more, and the wheezing gradually left, till, on the completion of the inhalation, she could breathe without difficulty. As the breathing improved she could feel the spray descending

lower and lower in her chest. At first it would seem to reach only the back of the tongue, then the top of the sternum, then descend to midsternum, and at last she felt as if it reached as low as the pit of the stomach. This improvement was maintained through the day, but at evening a relapse would occur, so that her nights, though at first bad, were still better than before the treatment. Soon, however, the effects became more lasting, and she slept well. On discontinuing the spray, however, her breathing again grew worse, and she was obliged to revert to the treatment: but unfortunately she soon caught cold, and so bad was the weather, that she was obliged to stay away for days together. Whilst her breathing improved the cough and expectoration also improved, but these two symptoms continued rather troublesome. Probably in bad bronchitic asthma the spray must at first be used twice a day or oftener, and must be continued for some time to ward off the dyspnœa, for in these obstinate chronic cases the bronchitis may take a considerable time to cure. So marked was the improvement from the spray that the patient and her friends expressed their astonishment, especially at the prompt relief it gave.—*Lancet.*

SURGERY.

On the Dispersion of Tumours by Puncture. By Deputy Inspector-General Cameron.

Those familiar with the East are aware that, from time immemorial, the native hakims have been accustomed to attempt to bring about the absorption of the enlargements of liver and spleen, so common in hot malarious countries, by the use of puncture with long, sharp stilets of considerable thickness. Twining, in his work "On the Diseases of Bengal," mentions the practice.

I have never followed it for the purpose of procuring the dispersion of such enlargements, but I have frequently seen those of the liver disappear rapidly after repeated plunges

of an ordinary hydrocele trocar when seeking unsuccessfully for suspected abscess : and I may say here, that I never saw in any instance inflammatory or any other bad symptoms produced by such operations, strange as it may appear to those unaccustomed to perform them. But what I wish to draw attention to is, that other enlargements besides those of liver and spleen may be made to disappear by puncture. Nothing is more tedious than those chronic glandular swellings which, in strumous subjects, often in hot countries follow upon trifling causes, such as angry mosquito bites, riding a rough bucking horse, over-exertion, or a strain in cricketing and so forth. I have seen an officer laid up for many months, and ultimately invalided with a large mass of indurated enlarged glands occupying the whole inguinal region, and resisting all the recognized routine of treatment. Accident showed me that deep puncture of such masses with a common lancet held at right angles to the swelling, and pushed down to its bottom, will often cause absorption to set in and proceed rapidly, The first case in which this occurred to me was one of a mercantile gentleman, disabled by a mass of swollen inguinal glands, hard as a board almost, and resisting all treatment. This patient's loss of time at office was a very serious matter to him, and influenced by his despairing impatience, I plunged a lancet perpendicularly into the mass as far as it would reach. The point came out tinged with matter, and hard pressure brought up a little cheesy, ill-formed pus, but no discharge whatever followed, and absorption set in and proceeded rapidly.

An extraordinary and suggestive case occurred to me afterwards, which, in my opinion, affords grounds for thinking that puncture might possibly be found to bring about the dispersion of such growths as fibrous tumours of the uterus. Reasoning from the non-supervention of any evil symptoms after repeated and deep puncture of the liver, even with such a clumsy tool as a small hydrocele trocar, I see no ground for fearing to puncture with a small stilet

such a fibrous uterine tumour as is often plainly to be felt through the abdominal parietes, and I think puncture through them less likely to be followed by any evil consequences than puncture per vaginam, owing to the perfect exclusion of air. That an analogous operation of the kind can be done safely and successfully the following remarkable case shows.

When superintending surgeon of the Southern Province in Ceylon, one of my assistants requested my advice respecting an infant of a few months old, whose parents were in a great state of anxiety and alarm about a swelling which they had discovered in its abdomen, and on which the usual constitutional and local treatment produced no effect. A fine healthy infant was brought forward, through whose abdominal walls a firm tumour, about the size and shape of a dove's egg, could be felt with ease. It was smooth, movable to some extent, painless on pressure, and seemed to be situated in front of the upper edge of the quadratus lumborum muscle, as far as one could judge, half way from the spine. I told the parents that nothing operative could be attempted with it, and recommended patient perseverance in the treatment already adopted, assuring them that no change was to be feared if left alone. This did not at all satisfy them ; they declared the tumour was steadily increasing, and would ultimately kill their child, imploring me to save it by an operation. To all this I turned a deaf ear, but they worried the gentleman in charge incessantly, and at last he too begged me to do something with the case, no matter what. On seeing the child again I found that the tumour was certainly increasing, for now it was as big as a full-sized pigeon's egg ; still I counselled non-interference, assuring the parents that any operation would in all probability prove fatal. To this they replied that they were quite prepared for such a result, and willing to risk it, as death would certainly follow the steadily increasing enlargement of the tumour, so that really they had all the misery of seeing their only child dying by inches, and nothing done

to prevent it! At last, like the importunate widow, they wearied me out, and as in my then position I had not to dread either Mrs. Grundy's remarks or a coroner's inquest, I agreed to "do something," at the same time distinctly stating that inflammation and death would almost certainly be the result of meddling. Full acquiescence being given, I steadied the tumour between my fingers spread out, and then pushed a lancet, held at right angles, deep into it. The feeling communicated to the hand was that of penetrating a dense glandular structure. No trace of matter appeared on the blade, no diminution of the tumour, nor any sign of internal hæmorrhage; so the infant got a suitable opiate and a large poultice over the abdomen, the parents being quite happy at their wishes being granted. It never had the slightest fever or bad symptom of any kind, and, absorption having set in at once, the tumour, whatever it was, disappeared altogether in a very brief space, while I had the praises of my wonderful skill sounded in all directions. With this case and those where a like result followed on puncture of the liver borne in mind, I should be greatly disposed to try a similar treatment sooner than see a patient perish by hæmorrhage consequent on fibrous uterine tumour. Those who never witnessed hepatic explorations are often very slow to believe in their safety and good effects. An old Peninsular P.M.O., new to the East, once saw me push a trocar deep into the liver three times in succession without finding the abscess I was in search of. He stole quietly away, unnoticed, while I was bending over the patient, being fully convinced that death would result. Next morning he met me with a very ominous face, and inquired, "How is your man, sir?" "Oh, very well," I replied. "What, sir! very well! after receiving three deep punctured wounds in his liver?" I advised him to go and see for himself, and great was his surprise on doing so. In that case a perfect recovery took place, the general enlargement wholly disappeared, and the man, a sad drunkard, was soon discharged to duty.

Having, some years ago, been so well abused in the pages of this journal by the Netley Professor of Medicine, for strenuously advocating the early puncture of the liver in every case of suspected abscess, it is with peculiar pleasure that I have read in the *Medical Gazette* of the 25th of April last, p. 457, the brilliant success of the operation at the Madras General Hospital, in a case where two distinct abscesses—one containing four, and the other *forty* ounces of pus—were opened in succession in the same patient, instead of leaving him to die of hectic while waiting for "pointing" to take place, as insisted upon by my severe critic. How many lives have I seen sacrificed to such timid practice! My long experience in such cases leaves no doubt on my mind that where hepatic abscess is suspected to exist, not a day should be lost before endeavoring to evacuate it. If this is done while the abscess is still small, and also deep-seated, I am inclined to think that nothing beyond the first emptying of it will be required, and that the canula may safely be withdrawn and the opening closed at once. The last hepatic abscess I opened showed no external indications whatever of its existence. The man had never had any acute symptoms, but was steadily declining in health without any specific tangible cause, so that I was requested to see him in consultation, and diagnosed deep-seated abscess, more by the method of elimination than anything else, save the sort of intuitive conviction which long experience often causes one to feel without being able to say specifically why. I felt certain he had a deep abscess somewhere in his liver, and made two deep unsuccessful explorations for it with an ordinary trocar. Fancying I had not gone deep enough, I took a long rectum trocar, and with that hit the spot, and evacuated about two ounces of thick matter. The usual plan of fastening in the canula was adopted, but it slipped out in the night and could not be reintroduced, in consequence of the resistance and struggles of the man. I expected effusion into the peritoneum and death would result, but to

my surprise the man rapidly recovered without the slightest bad symptom, and without any further discharge whatever, thereby considerably enlarging my ideas on the treatment of his formidable ailment; but, unfortunately, I never had another case of it during my subsequent year's service in India on which to try the improved plan of management with which accident had made me acquainted.—*The Lancet.*

Hydrophobia with Two Years and A Half Incubation.

Dr. Féreol, at the meeting of the Académie de Médecine of the 21st ult., read a very long memoir on a case of hydrophobia occurring in an individual bitten two years and a half before by a mad dog. He has since published it at length in the *Union Médicale*, but we may content ourselves with noting the chief points. The patient was a M. Durieux, a *pharmacien* by occupation, and forty-eight years of age. On June 18 he was admitted into the Maison de Santé with symptoms of commencing hydrophobia, which speedily became quite confirmed. Death occurred on the third day, and beyond some cerebral and spinal meningeal congestion nothing special was found at the autopsy, which was performed with the greatest care. The patient stated that he had been bitten in the hand two years and a half ago by a mad dog, and subsequent inquiries have confirmed his statement.

M. Féreol, convinced that his patient died of true hydrophobia, reviews at great length the various affections with which this may be confounded. Treating of "nervous hydrophobia," he refers to a remarkable case which fell under M. Demarquays notice. A student at the Hôtel-Dieu having been greatly affected by the suffering which he had witnessed in a patient dying of hydrophobia, had the misfortune as he was leaving the hospital to be himself bitten by a dog. He returned in a state of desperate alarm, and had the wound thoroughly cauterized, declaring that within six weeks he should return to die in the state of

horrible suffering which he had just witnessed; and accordingly at the period indicated he did return with all the symptoms of hydrophobia developed. As he was still alive at the end of the forty-eight hours, when the patient whom he had seen had expired, M. Demarquay joked him, declaring that, as he had passed that period, he had not the disease, and had nothing to fear. These words inspired the youth with hope, his symptoms abated, and he recovered. That the present patient was suffering in some analogous manner is rendered highly probable by a statement made by Baron Larrey at the next meeting of the Academy. During the siege of Paris, he observed, this M. Durieux (who besides being a *pharmacien*, had a medical diploma) became well known to him as an applicant for employment in the ambulances. From the first he remarked his zeal and ardour, as well as his excited state and language. He seemed to seek to brave all perils in order to distinguish himself; and his excessive anxiety to obtain the Cross, and his tumultuous joy on succeeding, made a great impression on M. Larrey. "I lost sight of him afterwards," he observes, "always remembering him however as one of the most restless, the most agitated, and the most excitable beings with whom I had ever come into contact. Did he not then present a moral predisposition to the manifestation of the neurosis which ended in a fatal hydrophobia? For my part, I should be disposed to regard his case, not as an example of rabies with an incubation of two years and a half, but as one of cerebral hydrophobia, or symptomatic of acute delirium provoked or aggravated by the coincidence of the bite of a dog presumed to be mad."

While on the subject of hydrophobia, we may advert to a case related recently to the Paris Hospital Medical Society by Dr. Bucquoy Physician to the Cochin Hospital, in which intravenous injection of chloral was tried. He approves of the condemnation which has been so generally expressed of Prof. Oré's proposal to substitute this practice for the administration of chloroform in surgical operations,

but he believes that few will accuse him of temerity in resorting to this mode of treating a disease so invariably fatal as hydrophobia· And although the remedy has proved as useless as all others, the case is worth notice as confirming Prof. Oré's statement that large quantities of chloral may be injected with impunity. On the 31st of May, a robust and healthy man, who had been bitten in the hand six weeks before, was brought to the hospital. The symptoms, which had commenced two days before, were fully developed, and the pulse was 120. A solution of chloral (1 to 5) was thrown into the median-cephalic and radial veins by means of an Anel's syringe—this, which held five grammes, being replenished thirteen times ; so that thirteen grammes of chloral were injected in the space of an hour and a half. At about the the tenth syringe the stage ef excitement appeared, just as under the use of chloroform ; and after the thirteenth, the patient fell into a deep sleep. He slept for about two hours ; and some time after he awoke, and while still somewhat under the influence of the chloral, he was able to drink small quantities of water twice. He passed the night calmly, and was able every now and then to drink, especially when a caoutchouc tube was employed. On the 1st of June he was very calm and contented, but on trying to drink the same frightful spasms seized him as at first. These afterwards continuing without exciting cause, and being accompanied by constant restlessness, chloral was again injected by the saphena vein, twenty grammes being employed before sleep was induced. This was very sound · but, after it had lasted two hours, the patient wes seized with a tetanic spasm of the muscles of the thorax, and soon afterwards died. Nothing remarkable was observed at the autopsy ; but it was ascertained that in no point of the venous system, which was very carefully examined, was there trace of inflammation, nor were there any coagula, in any of the veins into which the chloral had been injected.

It is in relation to the intravenous injections that the case is interesting, large quantities of chloral having been thrown in with innocuity. This probably arose from the precautions observed in doing this—viz., the employment of a weak solution (1 to 3), the avoiding any denudation of the vein, and the injection of small quantities (five grammes of the solution at a time, and that very slowly.—*Medical Times and Gazette.*

CANADA

Medical and Surgical Journal.

MONTREAL, OCTOBER, 1874.

HONOURS TO PROFESSIONAL MEN.

Public attention has been drawn to a letter signed M.D. which appeared in the last number of our periodical, which had for its text the bestowal of Imperial honours on a distinguished member of our profession in Canada. That such a course would be most acceptable to the profession in the Dominion there can be no doubt, and that the honour would be worthily bestowed on Dr. George W. Campbell, the venerable Dean of the Faculty of Medicine, McGill University, none will gainsay.

The claims that can be advanced for Dr. Campbell are numerous. He has steadily persevered in the practice of his profession during a period of nearly half a century, during the greater part of that time he has been identified as the Surgeon of this Metropolitan centre. Having been appointed to the chair of surgery in the McGill University in the year 1834 or 5, Dr. Campbell may be looked upon as almost the Father, so to speak, of surgery in Canada. But not only has he earned for himself, deservedly, a high reputation as a surgeon of practical skill and mature judgment in this, his adopted, country, but his reputation has spread far and wide, so that his name is familiar in the neighbouring Republic, in Great Britain, and on the continent of Europe. Another fact which would make the man a worthy recipient of such an honour, is that mainly through his influence has medical education in Canada been elevated to its present high standard, so that it is admitted that the medical graduates of McGill University are amongst the best educated men in their profession on this side of the Atlantic.

We speak of what we know full well, as in a recent visit to old England we felt an honest pride in learning from those whose opinion is worth receiving, that of all Canadian students those hailing from McGill University were amongst the best grounded men in their profession.

Again, we may state in reference to Dr. Campbell, that in times past, whenever the Government of the country sought counsel or advice in consequence of epedimic disaster, he, as holding a prominent position, has been selected for that work. In 1847 he was one of the Commissioners appointed under Imperial warrant, to carry out the relief which was extended to the emigrants who flocked to our shores in immense numbers that year, and who brought with them Typhus Fever of a most virulent and fatal type, following close on the footsteps of famine, the result of the failure of the potato crop in Ireland.

The British public are beginning to regard Canada as a part of the Empire. Hitherto there has existed a vast amount of apathy, a lack of desire to know anything about us. During the past few years the Canadian people have forced themselves under the notice of their fellow-countrymen. By the personal energy and enterprise of some our Canadian Merchants, lines of steamships have been established, so that a voyage across the ocean which formerly consumed two months, can now be accomplished with all the comforts of a river excursion, in little over a week. This has excited a growing interest in the prosperity of Canada, which we are willing to admit is *perfectly disinterested.* We may even repeat the eulogy which, perhaps, has become somewhat stale, that Canada, with all its disadvantages, is destined to play an important part in the world's future history. In view of these facts it will surely be to the best interests of the mother country to cement that union and cherish that affectionate regard with which, as Colonists, we look upon the land of our forefathers.

The people of Great Britain must bear in mind that although colonists we are still Britons, not in name only,

but in feeling, in principle, in action, in everything save and except actual residence. We rejoice when they are glad, and mourn when they are in tribulation. Their Queen is our Queen, and their country our country. Honour and prosperity to England swells our heart with pride, and what brings discredit on the name of England equally affects us. Such then being the relative position between us, it is not too much to expect the conferring of honours on our people, as is customary in the mother land. Honours conferred by the Queen on the profession in Great Britain have invariably given general satisfaction. Of late years these honours have been freely distributed,—not more so than was fully earned by the recipients—but, as compared with former times, hereditary honours have been conferred with no sparing hand. This is sufficiently gratifying, indicating that the profession in Great Britain is recognized as occupying that place of honour which is its due, and which should be conceded to a class of men devoted to the relief of the miseries entailed by disease on their fellow subjects.

On referring to the records of the past we find that the first member of the profession who was created a baronet, was Sir Richard Graves, M.D., somewhere about the year 1645. It is true that Dr. Butts, spoken of by William Shakespere, was knighted by King Henry VIII. From the year 1700 to 1866 thirty-three members only of the medical profession received the honour of a Baronetcy, and the majority of these were men who had served in the army or navy. In Canada, although statesmen and jurists have been the recipients of Imperial honours, the medical profession has been hitherto overlooked. And who is there in any community more worthy of honour than he who, in advanced life, is looked upon with respect, love and esteem, who is regarded as another order of being, who in distress, is the comforter, in pain and suffering the unremitting attendant, the alleviator, in difficulty and danger—the one above all others ready and willing to sacrifice comfort, repose, health—aye, even life

itself—in perfoming a sacred duty without fee or reward, ready and willing to be spent to the very last in performing his allotted task. Such is the life, such the action of the true and faithful medical and surgical practitioner.

MONTHLY NURSES.

The difficulty complained of by our correspondent BETA has often been experienced by ourselves, and we doubt not by many of our confreres. It is customary with nurses in this city to carry round their card of address, and leave one with each Medical Practitioner. Some of our medical friends systematically preserve a list of these names and addresses and freely give them to any applicant. This, however, is by no means a common custom, and when a necessity does arrive, too frequently those seeking the aid of nurses are obliged to run the town round before their efforts are crowned with success. It has been our idea to publish a list of nurses and their residences in a column of our journal, this we would repeat from month to month, and of those who are engaged in their business any one month, the fact could be intimated in such issue of the Journal. It only requires a ltttle concerted action on the part of the nurses themselves, and of our medical friends. We would head the page, monthly nurses, with the month indicated: Mrs.— No. 7 Bonaventure st., engaged, or when the nurse is not employed, a blank would appear. By this means a record would be preserved, constantly on hand and of use to the practitioner and to the public generally.

With regard to male-nurses we think ample room exists in Montreal for this class of persons, and we feel certain that it has but to be commenced by a few industrious individuals to render it a success. We do not think a nurses' home would be advisable as we have a lively idea that there are many Sairey Gamps amongst this "very useful class of women," and judge that it would hardly answer. If a home were established we fear the conventional tea-pot would be

a prominent article of furniture in the establishment, and possibly its contents might be imbibed out of stemless wine-glasses as of old—we fear, also, that the many conflicting elements, or natures found to exist with this "useful class of women" might, if thrown together, result in an occasional visit to our worthy Recorder's court, and a showing up in the only religious daily, to the manifest amusement and instruction of the numerous readers of that *estimable* journal.

VACCINATION EXTRAORDINARY.

We have received a letter from Dr. Coderre, in which he requests us to reproduce in our columns an article which appeared in the "La Minerve" on the 7th August last. We would willingly do so, if in any way it would place the conduct which Dr. C. has been pleased to assume towards a brother practitioner in a more favourable light. Dr. Coderre has, through zeal in his anti-vaccination views, placed himself in a very unenviable position. He has not only attacked a system, which is admitted on all hands to be beneficial and necessary to stamp out a virulent and loathsome disease, but he has gone farther and made a direct personal attack on a brother practitioner. The public do not care about Dr. Coderre's opposition to vaccination. They admit he is sincere in his views, but regard him as a fanatic, who would sacrifice everything even his own life in forcing on others his own convictions; but the important part of the whole matter, as far as Dr. Coderre is concerned, is that his convictions are not shared in by his fellow-citizens—he is consuming time, which to be practical, is money to every man, and indulging in much vexation of spirit, which renders a man dispeptic, splenitic, morose, miserable; deprives him of sleep, and with some would induce them to curse the day wherein they were born,—as did Jeremiah of old. We cannot see that we are called upon to republish the effusion of Dr. Coderre; he has

appealed to the public in a daily paper, and as onr Journal is devoted to the scientific advancement of our profession, we fear that the article sent for publication would not be received with anything like satisfaction by our subscribers, and therefore we are forced to decline the honour of giving up several columns of our reading matter to this subject. We give in another column a report of a public meeting, and there our readers will observe that Dr. Coderre and his followers were publicly censured by a large majority of their fellow practitioners for unprofessional conduct. We cannot characterize the means employed by Dr. Coderre and his disciples to mislead the public by the circulation of an exaggerated and untruthful photograph—it was disgraceful.

THE LATE VACCINATION CASE,

In response to an invitation, issued to the Profession throughout the city, by Dr. Larocque, one of the Health Officers, a number of gentlemen met in the Jacques Cartier Normal School on the afternoon of the 15th inst., to take into consideration a case of vaccination in a child, said to have been followed by injurious results.

Dr. Hingston was called to the chair, and Drs. Roddick and Grenier were requested to act as secretaries.

Dr. Larocque being called upon by the chairman, stated that he vaccinated the child in question on the 22nd July last, with lymph taken by himself in the presence of Dr. Thompson, from a heifer a month previously. The mother failed to return with the child in a week as directed, but came after a fortnight or more, and stated that a Dr. Jacques was of the opinion that *mortification* had set in, and the child would lose its arm. A bandage which had been ordered to be applied to the arm by the last named medical gentleman was removed, and beneath were found the vaccination sores suppurating nicely, though perhaps rather indolent looking, no doubt from the indifferent state of health of the child. These observations were verified by

three or four other members of the profession who were asked to see the case about this time.

While things were in this condition, it appears that Dr. Coderre and some half dozen of his anti-vaccination disciples got wind of this *frightful* example of the evils of the system, and commenced to make capital of it. They first had the child photographed with the affected arm placed prominently forward, and then with the assistance of an artist, whose imagination they put also on the stretch, they depicted the upper arm as in a condition of sphacelus, making imaginary sections to endeavour to prove that the sloughs extended to the bone. The photograph and colourings were exhibited.

Drs. Kennedy and Trenholme stated that they saw the arm when it probably looked most unfavourable, and they could move the skin with the ulcers freely over the subjacent cellular and muscular tissues. They concurred in saying that there was nothing in the condition of the child to create such alarm—she played about, ate well, slept well, there was no enlargement of the glands of the axilla to indicate constitutional mischief—nothing in fact to prove that there was a shadow of basis for repudiating vaccination.

Drs. Coderre, Gauthier, and some half dozen others attempted to prove that they had seen the arm in a much worse condition than that described by the former speakers, and insisted that the drawings were not over coloured.

Dr. G. W. Campbell said that unless the child was actually dead, or at least the arm removed from the body, and sections of the part regularly made, these delineations must be pronounced incorrect, and imply the work of an artist drawn from imagination.

The chairman now stated that the child under discussion was in the building and if the meeting so decided it should be brought in.

The child was accordingly exhibited, all the members examining it in rotation ; immediately after which the following resolution moved by Dr. G. W. Campbell, seconded by Dr. Rottot was placed in the hands of the chairman.

"That after having carefully examined the arm of the child Labelle, vaccinated by Dr. Larocque in July last, we are of opinion from the appearance of the arm now presented, that there has been no extensive destruction of tissue, and no evidence of any injurious virus having been introduced into the system; and that the scar presents the ordinary appearance of healthy vaccination."

Dr. Campbell in speaking on the motion said that he who, having any pretensions to being a surgeon, would call that scar a syphilitic one, ought to be turned out of the profession. He further stated in the course of his remarks that he never knew, during the past forty years, of a bad case of small pox occurring to a single one of the large numbers vaccinated by him.

Dr. Rottot stated that, notwithstanding the general impression, he did not believe it was the intention of Dr. Coderre and his friends to injure the reputation of their brother practitioner Dr. Larocque, but to carry out their anti-vaccination programme.

An amendment to the motion was then proposed by Dr. Raymond seconded by Dr. Hamelin "That in this case of the vaccination of the child Labelle, vaccination has been proved to have been followed by bad results."

The following voted for the amendment: Drs. Coderre, Beaudry, Brosseau, Durocher, Barsalou, Craig, Gauthier, Jacques, Archambault, Filiatrault, Hamelin, Raymond. Dagenais, Vilbon, Gariepy, Fafard, and Dubout. Total 17.

The following voted *nay:* Drs. G. W. Campbell, Rottot, Thompson, Trenholme, Howard, MacCallum, Rollin, Girdwood, Larocque, Rodger, Genand, David, Perrault, McDonell, Mondelet, Reed, Fenwick, Bessey, Barnes, Kennedy, O'Rourke, Ed. Robillard, Gagnon, Millette, Dugdale, Nap. Robillard, Leblanc, Desmarteau, Browne, Bourque, Mathieu, Leduc, Mount, Beaubien, Grenier, Rivard, Ricard, Laramee, and Roddick. Total 39.

The motion was carried by a similar contra-division.

Dr. Fenwick now moved, seconded by Dr. Ed. Robillard,

"That in the opinion of this meeting, the action of certain medical gentlemen in publishing and circulating photographs to represent alleged injurious effects of vaccination is strictly unprofessional and highly censurable, as calculated to mislead the public, and as adverse to the best interests of the science of the day."

Dr. Howard quite coincided with the spirit of this motion, and thought that the medical and not the public press should be made the medium of discussion of such matters appertaining to the profession.

After some difficulty, owing to the confusion produced by Dr. Coderre and his party leaving the room, Dr. Fenwick's motion was put and voted for, by the same persons who had carried the former motion, with the addition of Dr. Gariepy from the other party, thus increasing the former total to forty.

A vote of thanks was heartily tendered Dr. Hingston for his able conduct in the chair, after which the meeting adjourned.

Books Received for Review.

The following works have been received from the publishers, and shall receive an early notice:

The Complete Hand-book of Obstetric Surgery; or, Short Rules of Practice in every Emergency. By Charles Clay, M.D., late Senior Surgeon and Lecturer on Midwifery, St. Mary's Hospital, Manchester, England. 8vo. pp. 328.—Philadelphia, Lindsay & Blakiston, 1874.

The Physician's Dose and Symptom Book, containing the doses and uses of all the principal articles of the Materia Medica and officinal Preparations. By Joseph H. Wyths, A.M., M.D., &c. Philadelphia, Lindsay & Blakiston, 1874.

Lectures on the Clinical uses of Electricity, delivered in University College Hospital. By R. Russell Reynolds, M.D., F.R.S., &c., &c. 8vo. pp. 118. Philadelphia, Lindsay & Blakiston, 1874.

Surgical Emergencies, together with the Emergencies' Attendant, on Parturation and the Treartment of Poisoning. By W. Paul Swain, with eighty-two illustrations. 8vo. pp. 189. Philadelphia, Lindsay and Blakiston, 1874.

Materia Medica, for the use of Students. By John B. Biddell, M.D., Professor of Materia Medica, Jefferson Medical College. —— —— Sixth edition, revised and enlarged. 8vo. pp. 435. Philadelphia, Lindsay & Blakiston, 1874.

A Practical Treatise on the Diseases of Women. By T. Gaillard Thomas, M.D., Professor of Obstetrics Col. : Physician and Surgeon, New York, &c., &c. Fourth edition, 8vo. pp. 801. Philadelphia, Henry C. Lea, 1874.

A Treatise on Pharmacy : designed as a text book for the Student and as a guide for the Physician and Pharmacist. By Edward Parish. Late Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy. 8vo. pp. 977. Philadelphia, Henry C. Lea 1874.

A Conspectus of the Medical Sciences : comprising Manuals of Anatomy, Physiology, Chemistry,Materia Medica, Practice of Medicine, Surgery and Obstetrics, for the use of Students. By Henry Hartshorne, A.M., M.D. Second Edition. 8vo. pp. 1024. Philadelphia, Henry C. Lea, 1874.

Essays on Conservative Medicine, and kindred topics. By Austin Flint, M.D., Professor Theory & Practice of Medicine, Bellevue Hospital Medical School. 8vo pp. 214. Philadelphia Henry C. Lea, 1874.

Electro-Therapeutics, a condensed Manual of Electricity. By D. F. Lincoln, M.D., Physician to the Boston Dispensary. 8vo. pp. 186. Philadelphia, Henry C. Lea, 1874.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Three cases of well marked Moral Insanity, with remarks; reported for the Canada Medical and Surgical Journal.
By Henry Howard M.D., Medical Superintendent, of the Provincial Lunatic Asylum, St. Johns, P. Q.

It is now a recognized fact, by all scientific medical men that there can be no case of Insanity, from any exciting cause whatever, if there does not exist already, an insane neurosis, that is a predisposition, in either, or both, of the intellectual and moral faculties, or more properly speaking the intellectual and moral organization, from which these faculties come. Of course there is the exception, where there is organic disease, such as apoplexy, and softening of the brain, or a disorganised state of the brain from direct injury. The next well established fact is, that all cases of Insanity, whether it be intellectual or moral, or a combination of both, is produced by physical causes. Some physical disease of the nervous centre must exist, consequently insanity to be treated, on scientific principles, must be treated both physically and morally. There is not much difficulty in diagnosing a case of insanity depending upon direct organic disease, but it is not always very easy, to diagnose a case of insanity, particularly if it is moral insanity, from functional derangement. It is so very easy to confound moral insanity, with moral depravity, or what we call wickedness. The following quotation is from Maudsley on "Responsibility in Mental Diseases."

"This is a form of mental alienation which has so much the look of vice or crime that many persons regard it as an unfounded medical invention. Much indignation therefore has been stirred up where it has been pleaded to shelter a supposed criminal from the penal consequences of his offences; and judges have repeatedly denounced it from the bench as 'a most dangerous medical doctrine' 'a dangerous innovation' which in the interest of society should be reprobated. The doctrine has no doubt been sometimes used improperly to shelter an atrocious criminal, but of the actual existence of such a form of disease no one who has made a practical study of insanity entertains a doubt." "Notwithstanding prejudices to the contrary, there is a disorder of mind in which, without illusion, delusion, or hallucination, the symptoms are mainly exhibited in a perversion of those mental faculties, which are usually called the active and moral powers, the feelings, affections, propensities, temper, habits, and conduct. The affective life of the individual is profoundly deranged, and his derangement shows itself in what he feels, desires, and does. He has no capacity of true moral feeling, all his impulses and desires, to which he yields without check, are egoistic; his conduct appears to be governed by immoral motives. which are obeyed without any evident desire to resist them. There is an amazing moral insensibility. The intelligence is often acute enough, being not affected otherwise than in being tainted by the morbid feelings under the influence of which the persons think and act. Indeed they often display an extraordinary ingenuity in explaining, excusing, or justifying their behaviour, exaggerating this, and ignoring that, and so colouring the whole as to make themselves appear the victims of misrepresentation and persecution. Their mental resources seem to be greater sometimes than when they were well, and they reason most acutely, apparently because all their intellectual faculties are applied to the justification, and gratification of their selfish desires."

Every medical superintendent of Lunatic asylums sees

these cases of moral insanity, some of them, however, more marked than others. The three following cases at present under my charge, are particularly well marked.

Case 311 on the Register, young man aged 24, admitted January 1873. History as given by his father. Was a well educated, classical scholar, had always been a good, obedient son, and of good moral conduct. Three months previous had some words with his employer and left his employment, became depressed in spirits, gradually became slovenly in his person, and morose in his manners, and his whole nature seemed to change. He became immodest in his actions, and would expose himself before his mother and sisters, endeavoring to justify his conduct by argument. His intellect appeared as clear as ever it was. His sisters feared to have him in the house, consequently his father brought him to the asylum.

He has been with me now for nearly two years, his intellectual faculties have never given way, his moral conduct is improved, yet poor fellow he is guilty of that which I fear if continued, will in time destroy all his faculties.

Case 344 on the Register. Young man aged 20. Exactly a similar case to the first, history the same, conduct in asylum the same, with this difference, only, that the latter for a time, was under the impression that his father, and everyone else, wanted to poison him.

Case 358 on the Register, a case of *Dipsomania.* A girl aged 25. admitted May 12, 1874. History ; has been in jail 63 times in 12 years, once in the penitentiary, four times in Beauport Lunatic Asylum, is blind of an eye, having gouged it out herself with her thumb. After being with me for a couple of weeks she became perfectly well, she is perfectly well now, her conduct in the asylum is irreproachable, and she speaks as intelligently as any one can. She tells me that when the *fit* comes on her for strong drink, she must have it, no matter what is the consequence, she will have it, though she knows it sets her, not drunk, but mad, and she would take it though she knew it would cost her, her life, and she

would commit any crime to obtain it. Poor thing; I will take care that it will be a long time before she gets the chance. This is not the only case of this sort I have had under my charge, I have in my mind now, the most thorough gentleman I ever knew, one of the most lovable men I ever met, so good, so kind, so full of the milk of human kindness, yet poor fellow, when this thirst for drink comes on, he gets just as mad as the girl whose case I have given. His case is hereditary.

It will be at once assumed that I have an object in view in writing to prove that there is such a disease as moral insanity. Most assuredly I have, one is to draw public attention to the fact, that there is such a disease and that the public should know it, and when they hear of an extraordinary, and an unaccountable crime being committed, before they enter into judgment, and condemnation, upon the perpetrator, they will in charity, wait, and see if he is not a victim of moral insanity. And this brings to my recollection that some time since there was a man, I think by the name of Bowen, condemned in Napanee, Ont., to four months imprisonment, and to be flogged twice, for having attempted to rape his own child. When we hear of such an unnatural crime, we naturally look for a case of moral insanity, and I beg that you will, through your Journal ask some of our confreres in that part of the country to give a report of the history of that man, his parentage, and, if possible, the history of his grand parents. Such a history may throw some light upon the case, that would be useful in a scientific point of view.

In conclusion, as man's intellectual and moral sensibilities are dependent upon his intellectual and moral organization, and as these organizations, particularly in childhood, can be improved by a proper physical and moral education, should there not be great caution used on the part of parents and teachers, in the training of children? Have parents and teachers been cautious enough in this particular? Have they seen the necessity, that if they would have a strong

mind, they must have a strong and healthy body? Have they discriminated between the child of high mental organization, and the child of low? Have they discovered the fact, that the treatment, which is good for one, is destructive of the other? I fear not, I fear these things have not been properly attended to, I fear that pride and ambition, have taken the place of prudence and justice, and that because of this, we find insanity so much upon the increase all over the world, more particularly in Christendom. If such is not the case, it will be very hard to say what is the cause, for certainly for the last century there have been fewer marriages of consanguinity than in any previous century, and moreover, I believe, bad as we are, less of drunkenness and general immorality.

Reviews and Notices of Books.

The Physician's Visiting List for 1875. Twenty-fourth year of its publication. Philadelphia: LINDSAY & BLAKISTON.

We are indebted to Messrs. Lindsay & Blakiston of Philadelphia, for a Physician's visiting list for twenty-five patients per week, for the year 1875. This is the twenty-fourth year of the publication of this little book, and in common with many others we can testify to its usefulness, simplicity and general completeness.

It contains among other things, an almanac for the year 1875; Marshall Hall's Ready Method in Asphyxia; Poisons and their antidotes: Table for calculating the period of Utero-gestation; blank leaves for visiting list; blank leaves for monthly memoranda, for obstetric engagements, for a record of births and deaths, and for general memoranda &c. &c. It is of a very convenient size for carrying in the pocket, and we can recommend it as the most compact and handy visiting list which we have yet seen.

Electro-Therapeutics; A Condensed Manual of Medical Electricity. By D. F. Lincoln, M.D., 8 vo. pp: 186. Philadelphia: Henry C. Lea, 1874.

We have here, in a small compass, a great deal of valuable information upon the subject of Medical Electricity. The author appears to have consulted almost all the recent writers on the subject, and his own experience in the treatment of nervous diseases by electricity seems to have been extensive. In chapters I. II. and III., we have a preliminary statement of the Physical laws, relating to or governing electricity; a short account of the various modes of generating it, and of its Physiological actions. Chapter IV. treats of Electricity as a means of diagnosis, and is, although short, very suggestive. "The main value of electricity," says Dr. Lincoln, "as an aid to diagnosis, lies in the indications its reactions furnish with respect to the seat of a motor lesion." If the lesion be central, the paralyzed motor nerve will still respond to electricity, but if the lesion be peripheral, the nerve loses wholly or in part its power of responding to electric stimuli. Of course the two lesions may coexist. In Chapter V. the methods of applying electricity are described, and diagrams are given, showing the "*points d'election*," which are the points most advantageous for producing given muscular contractions. These points correspond exactly to the places where the motor nerves enter the muscular tissue. Chapter VI. is devoted to the Therapeutics of Electricity, and describes its use in the treatment of both medical and surgical diseases. This is a thoroughly practical chapter and is the most instructive part of the book. Chapters VII. and VIII. are short, and are devoted to cautions in the use of electric batteries and hints regarding apparatus.

A study of this little book will be very useful to the general practitioner, who has not time to devote to reading larger works on the subject, and who wishes to employ what is now recognised as a valuable therapeutic agent.

Lectures on the Clinical Uses of Electricity.—Delivered in University College Hospital. By J. Russell Reynolds, M.D., F.R.C.P., Professor of the Principles and Practice of Medicine in University College, &c., &c. Second Edition. 8vo. pp. 118. Philadelphia, Lindsay & Blakiston, 1874.

We learn from the preface that these lectures, forming a special course, were delivered by Dr. Reynolds during the summer of 1870, in University College Hospital. A short-hand report by Dr. Gowers appeared at the time in the columns of the *London Lancet*. Subsequently, at the request of many of his pupils, Dr. Reynolds published a revised edition of the lectures with such additions and emendations as appeared to be desirable. The author wishing to render the work strictly practical has avoided all debatable ground, confining his remarks as closely as possible to ascertained facts as bearing on the clinical uses of electricity in the diagnosis and treatment of disease.

The opening chapter consists in general remarks on the clinical uses of electricity, and here the author points out in what cases this agent can be rendered efficient in determining the presence or absence of disease. For instance in alleged paralysis of one limb, the application of the electric current will detect a difference between the two should such a state of things really exist, so that this agent is most valuable in the discovery of a condition known to exist, and which will occasionally give much trouble and perplexity,—we allude to "sham;" but, again, the necessity of caution is recommended, as it is not always advisable or just to accuse a patient of "humbug," or malingering, simply because we are unable to detect an electric difference between two limbs, one of which the sufferer states he cannot move.

There are other conditions, however, in which electricity acts as a therapeutic agent of great value—cases in which its use will apparently effect an instantaneous cure. We say apparently, because although a change marked and

permanent is the result of a single application, yet the existence of any actual morbid condition has been wanting. It is precisely this class of patients that the charlatan delights to secure. By the use of his wonderful battery a person who has been suffering, perhaps for months, from hysterical aphonia, will by a single application regain her voice. Again, there are other conditions which are relieved by the applications of this therapeutic agent. Pain may be assuaged, spasms relieved, and paralysis ultimately removed. A third group of cases there are in which electricity will fail to cure, but in which the progress of the disease will be arrested ; and lastly, there is a class of cases in which the application of electricity can do no good, but on the contrary much harm may follow its use. The author observes, "The general facts which I wish you therefore to bear in "mind with regard to the two main directions in which "electricity is useful are these : That like other modes of "examination or treatment, this one has its limits, and that "only by its appropriate employment within these limits "can it be of any real service in either diagnosis or thera-"peutics."

We have next a description of the various forms of electricity in clinical use : as first, the Franklinic, static or friction electricity ; under this head is included the electric bath, the shock, the application of sparks and the use of the Leyden vial. Secondly, Galvanic electricity, either the constant or the interrupted current. The meaning of the terms direct and inverse are explained, and other practical observations are noted. Thirdly, that form of electricity known as faradization, or "that particular kind of which Faraday was the exponent." This is of very high tension, and resembles Franklinic electricity more closely than it does the galvanic current. This form of electricity has been known or distinguished by the several terms, "induced electricity," "magneto-electric," "voltao-magnetic," and "voltao-dynamic." With regard to this form, "there are two terms commonly used about it,

primary and secondary,—this for clinical purposes is almost a useless distinction." The word "primary" appears to be an improper use of that term, "for the current so named is not a primary current in the sense of being a simple battery current;" it is a battery current strengthened by induction. The secondary current is when you have an induction from an induction, and is therefore secondarily induced, the difference between them clinically is mainly one of intensity, the secondary possessing greater intensity than the primary.

The author next proceeds to review the various clinical effects of electricity when applied. These he divides into, first, its chemical effects, such as the production of blister, coagulation of the blood, its effect as a cautery, and its use in dissolving calculi; and secondly, its vital effects, as its action on the nerves, either calling into play nervous action which has been partially lost, or in diminishing the activity of a nerve when in excess. On muscles, electricity may with advantage be applied either in cases where there exists morbid inactivity or where there is a state of spasm either tonic or clonic. Electricity, from whatever source, may be applied to any one muscle or group of muscles through the skin or through the nerve trunks which supply the muscles. On the skin, it will increase the activity of the capillary circulation, in cases of partial paralysis, or in cases of languid circulation. All the forms of electricity are of benefit in these cases. The continuous current will moreover have a decided effect on the deeper tissues of a limb, so that the nutrition of the muscles and most probably of the nerves may be improved. Another beneficial effect that will undoubtedly result from the use of electricity is the general improvement of the nutrition of the part to which it is applied. The bulk of a wasted muscle may by this means be increased, whether the wasting has been due to degeneration of the muscular tissue,—disease or accidental division of its nerve, blood poisoning, disease of the spinal cord or brain, or disuse, as in long-existing palsy. We next have a chapter on the diagnostic

uses of electricity, and another on the clinical uses of electricity, and an appendix in which is described the requirements of an electrical room We have perused this little book with much interest and can heartily recommend it for its practical value. Not only will the reader, in its pages ascertain what diseases or conditions of the system are benefitted by the use of electricity, but he will here see what form of electricity will be most advantageously employed.

A Clinical History of the Medical and Surgical Diseases of Women. By ROBERT BARNES, M. D., London. Fellow & Lumleian lecturer (1873), Royal College of Physicians; Examiner in Obstetrics and the diseases of women at the University of London and the Royal College of Surgeons: Obstetric Physician and Lecturer on Obstetrics and the diseases of women to St. Thomas's Hospital. With one hundred and sixty-nine illustrations, 8 vo. pp., 791. Philadelphia, Henry C. Lea, 1874.

This subject, as Dr. Barnes remarks, is indeed wide and important, not only in its direct application to the relief of the special diseases it embraces, but also in its endless and interesting relations to the physiological and pathological history of women. "A physician cannot possibly understand many of the disorders of the organs of assimilation, of respiration, of circulation, and especially of the nervous system, without a careful investigation of the condition of the reproductive organs." How very frequently, indeed, do we see disturbances in remote parts treated as arising from a variety of suspected local disorders, when in fact they are entirely originated from some trouble, either functional or organic in the generative organs. Admitting this, as we think every one must do, we recognize the paramount importance to the practical physician of possessing a sufficient and satisfactory knowledge of the various affections to which these organs are liable, in order to be

able to assure himself of the presence or absence of any of them in any given case. Now, although we have a goodly number of treatises upon diseases of women, yet this branch has justly been denominated by the author "one of the less generally cultivated departments of medicine"—and therefore it is that there yet remain in it so many points of unsettled pathology and undecided questions of treatment. Dr. Barnes, in this book, brings to us the results of his extended researches towards explaining matters appertaining to pathology, and of his immense experience towards determining the value of various lines of treatment. An introductory ground work is laid in the commencing chapters by a most careful description of the general and minute anatomy of the whole of the generative organs, and then all the known functional and organic derangements of these organs are treated of *seriatim*. It is called a *Clinical* history and, although the arrangement of the volume is systematic, yet the great mass of the author's remarks come to us as though made (as indeed they have been) from observations of his own and thus possess all the force of bedside teaching by a master of his art. Hardly a subject but is illustrated by the recital of original cases from the author's own notes, each tending to bear out the point to be impressed. The functional disorders, Amenorrhœa, Dysmenorrhœa, Menorrhagia, &c., are first treated of in the most exhaustive manner, including special and practical notices of such other affections as vaginismus, dyspareunia, &c., together with the signifiance to be attached to each of these. Special chapters are also devoted to "the menstrual irregularities of the climacteric epoch"—"the influences of ovulation and menstruation in evoking morbid influences"—"the disorders of senility or decrepitude." Eight chapters are then devoted to a description of the abnormal conditions and organic diseases of the ovary—special attention being given to the diagnosis and treatment of ovarian cystic disease under every possible variety of cir-

cumstances. Now that ovariotomy is one of our recognised operations and it is so frequently performed, it behoves every surgeon to be freely acquainted with all the difficulties which may surround the diagnosis of a difficult case and the dangers to be met with in the performance of the operation. Much can here be learnt to assist him in forming an accurate and confident opinion of the exact nature of the abdominal contents and in avoiding those perils which are likely to beset his path.

Next we have treated of, the organic disorders of the Uterus and Uterine ligaments—inflammatory, developmental and mechanical. Perhaps one of the most valuable and complete of these chapters is that upon pelvic hæmatocele, the frequency of which is not even yet generally admitted, but which, through greater care and minuter examinations is being more and more frequently recognized. Numbers of cases, presenting a variety of phases, are alluded to in the text. All the displacements and the different modes of managing each, are succesively described, and then the Tumors of the Uterus are taken up and chapters subsequently devoted to Cancer and Tubercle of the Uterus. Finally we have a section describing the diseases of the Vagina and of the Vulva.

Dr. Barnes deserves the thanks of the entire medical community for the production of this treatise through which every physician interested in Gynœcology is at once put in possession of the fruits of the immense toil and vast experience of one who has done so much to enrich this particular branch of medical science.

The book is extremely well printed and the illustrations are original and very valuable.

The Physician's Dose and Symptom Book. By Joseph H. Wythes, A.M., M.D., Author of the "Microscopist" &c.—Eleventh Edition, 8 vo., pp., 236;—Philadelphia, Lindsay and Blakiston, 1874.

We have here the eleventh edition of this little book, which

appears to have been received with great favour by our American professional brethren. In this edition the same arrangement has been followed as in the last, but it has been revised and compared with the U. S. Dispensatory &c., and the author has endeavoured, as he tells us, "to embody the recent additions to the Materia Medica, as well as every article likely to be useful." In this comprehensive undertaking, he appears to have met with a limited amount of success, and we have no doubt that many a hard worked practitioner will find it a useful little work to have on his study table. In Section V. we have an Index of Diseases and Treatment, after Tanner. In the next section we have an Alphabetical List of Medicines with their uses, doses &c., and in section VII. a Pharmaceutical Arrangement of the Materia Medica. At this point we think that the author would have been wise to have stopped. The remainder of the work is occupied with a Table of Symptomatology and with Outlines of General Pathology and Therapeutics. These we think should be systematically studied in more comprehensive works, and elucidated by careful clinical observation. We think that this part of the work so far from being useful, may become positively injurious, by inducing carelessness, and a slip shod mode of practice. We are far from claiming for Medicine the honours of an exact science, but we would gladly see the Practice of Medicine followed in a scientific spirit. This end is not to be attained by the constant use of manuals like the present, although we should not like to see this one consigned to the limbo which to our mind is the just portion of the whole tribe of "Remembrancers."

Books Received for Review.

Therapeutics and Materia Medica.—A Systematic Treatise of the action and uses of Medicinal agents including their description and history. By Alfred Stille, M.D., Professor of Theory and Practice of Medicine and of Clinical

Medicine in the University of Pennsylvania &c., &c., &c. Fourth Edition thoroughly revised and enlarged. In two volumes 8 vo: vol. 1, pp. 968; vol. 2, pp: 976. Philadelphia: Henry C. Lea, 1874.

Essentials of the Principles and Practice of Medicine; a hand book for students and practitioners. By HENRY HARTSHORNE, A.M., M.D., Professor of Hygiene in the University of Pennsylvania, &c., &c. Fourth Edition: thoroughly revised, with one hundred illustrations. 8 vo. pp: 548. Philadelphia: Henry C. Lea, 1874.

Clinical Lectures on Various Important Diseases; being a collection of the Clinical Lectures delivered in the Medical ward of Mercy Hospital, Chicago. By MATTHEW S. DAVIS, A.M., M.D., Prof. Principles and Practice of Medicine and Clinical Medicine in Chicago Medical College. Edited by Frank H. Davis, M.D., second Edition 8 vo. pp: 287. Philadelphia: Henry C. Lea, 1874.

Periscopic Department.

SURGERY.

Nasal Catarrh; its Pathology and Treatment. By EDWARD C. MANN, M.D., New York.

As the nasal mucous membrane is especially liable to become involved in the nutritive and functional disorders characteristic of catarrh, it is proper to look briefly at the anatomy of the region, the diseased condition of which we propose to treat.

The pituitary or Schneiderian mucous membrane, which lines the nasal cavities, is continuous externally with the skin, through the anterior nares, and with the mucous membrane of the pharynx through the posterior nares. From the nasal fossæ it is continuous with the conjunctiva proceeding through the nasal duct and lachrymal canals. It may also be traced proceeding through the Eustachian tube, being

continuous with the lining membrane of the tympanum and mastoid cells. It is also continuous with the frontal, ethmoidal, and sphenoidal sinuses, and antrum maxillare, through the opening in the meatuses. The nasal mucous membrane is thickest and most vascular over the turbinated bones and septum, and is very thin where it lines the intervals between the spongy bones, and also on the floor of the nasal fossa. At the upper part of the nasal fossæ the mucous membrane is covered with tessellated epithelium corresponding with the distribution of the olfactory nerve, but the remainder of it is covered with ciliated epithelium, except at the entrance to the nares. The nasal mucous membrane is abundantly supplied with mucous glands, the ducts of which open upon its surface. The arteries supplying the nasal fossæ are the anterior and posterior ethmoidal, from the ophthalmic, which supply the ethmoidal cells, frontal sinuses, and roof of the nose; the spheno-palatine, which proceeds from the internal maxillary artery, and supplies the mucous membrane covering the spongy bones, the meatuses, and septum; and, lastly, the alveolar branch of the internal maxillary artery, which supplies the lining membrane of the antrum. The olfactory nerves, which preside over the sense of smell, break up into bundles of primitive fibres, which bundles are contained in nucleated sheaths, and are composed of the finest fibrillæ, which are held together by finely granular matter. These bundles of nerve-fibres penetrate into the epithelial layer, pass outward between the epithelial cells, and probably terminate by free extremities. The finest fibrillæ of the olfactory nerves, after penetrating to the epithelial layer, are supposed to surround the epithelial cells on all sides, and with them reach the surface of the epithelial layer. The large epithelial cells are seen by the microscope to be covered with fine longitudinal striæ over their entire length, which are supposed to be the terminal extremities of these fibrillæ of the olfactory nerves.

Nasal catarrh may be defined as an acute catarrhal in-

flammation of the mucous membrane which lines the nasal cavities, beginning with hyperæmia of the mucous membrane, followed by swelling, accompanied at first by excessive dryness of the mucous membrane, and afterward by a secretion, which is at first thin and watery in character, and afterward, if the disease progress to any extent, becomes muco-purulent or even purulent in character, giving rise to ozœna, which term is used to denote any chronic discharge of a fetid character from the nasal cavities.

At the outset of an attack of acute nasal catarrh, the capillary vessels of the nasal mucous membrane are distended with blood, the tissues are infiltrated, and from the mucous membrane, swollen by congestion and œdema, is discharged a thin, colorless saline secretion. After the primary swelling and congestion have subsided, this secretion becomes thickened from the addition of young cells. If the disease runs into the chronic form we shall find the nasal mucous membrane considerably thickened, especially the mucous membrane covering the turbinated bones. The swellings of the nasal mucous membrane do not have their seat in the mucosa, but are œdematous infiltrations of the sub-mucous connective tissue. The swelling is dependent upon the amount of hyperæmia, so far as depends upon the increase of volume of the vessels and upon a more abundant saturation of the mucous membrane with serum. After this condition, which characterizes acute catarrh, the mucous membrane may return completely to its normal condition, but it is liable, upon very slight irritation, to again take on catarrhal inflammation ; and such relapses are much more difficult to treat than was the primary disease. Each relapse increases the proliferation of cells in the sub-mucous connective tissue. The epithelium and mucous glands gradually enlarge, and the mucous membrane passes into an hypertrophied condition. In chronic nasal catarrh we find in many instances catarrhal ulcers, superficial as a rule, but which in scrofulous and cachectic patients may penetrate more deeply, destroying the perichondrium and periosteum,

and giving rise to caries and necrosis of the cartilages and bones of the nose. In these cases, the secretion from the nasal passages is extremely offensive, requiring the use of deodorizing solutions of chloride of lime, or permanganate of potassa, which may be used with the posterior nasal syringe or nasal douche. A solution of glycerine containing iodine and iodide of potassium has rendered us great service in these scrofulous conditions, by aiding in the detachment of thick crusts, exfoliating bone, etc. In cases where the mucous membrane is much thickened, applications of nitrate of silver will often afford relief; but where there is relaxation of the mucous membrane, or where it has assumed the condition of mucoid polypous outgrowths, which block up the nasal passages, the best plan will be to remove such growths, either by twisting them off by forceps, or encircling them with a wire snare, and then cutting them off by drawing the loop tight, after which the remaining portions may be cauterized with nitrate of silver. The senses of smell and taste are perverted, and in chronic cases it is not uncommon to find complete anosmia resulting from the effect produced bythe long-continued inflammatory process upon the terminal distribution of the olfactory nerves.

The symptoms are very varied in character, affecting some persons but slightly, while others suffer intensely from the severity and rapid recurrence of these attacks. The symptoms at the outset are a sense of dryness, irritability and obstruction in the nostrils, with difficulty in nasal respiration. There is also very severe pain in the region of the frontal sinuses, and, if the inflammation has extended to the Eustachian tube, the patient will complain of roaring noises in the auditory canal, with some pain and dullness of hearing. There will be also a constant disposition to sneeze, which is kept up by the irritation of the inflamed mucous membrane by the saline secretion. This irritating property of the watery secretion is due to the quantity of ammonia contained in it, and very often it causes excoriation of the upper lip as it flows over it.

In chronic nasal catarrh the symptoms differ entirely, the prickling sensation in the nose, sneezing, frontal pains, and febrile action, being generally absent, while in their place we find obstruction of the nasal passages, owing to the mucous membrane being relaxed, and the membrane covering the turbinated bones hypertrophied and thickened.

There will also be found accumulations of thickened crusts of inspissated mucus at the entrance to the posterior nares. The secretion of chronic catarrh is of a mucous, mucopurulent, and (in cases of ulceration of mucous membrane) purulent character. In cases where there is no ulceration of the mucous membrane there is generally no fetor attending the discharge from the nasal passages; while in scrofulous or syphilitic cases, attended with caries, or necrosis, or even ulceration, we generally perceive it, even at quite a little distance from the patient. The length of an attack of acute nasal catarrh varies from two or three days to a week or two; while the chronic form of nasal catarrh is an exceedingly obstinate disease, lasting sometimes for years. In view of the predisposition of nasal catarrh to assume a chronic form, and of the difficulty experienced in eradicating it when it has lasted for some months, it becomes a matter of great interest to those interested in diseases of the throat and respiratory organs. By means of rhinoscopic examinations we are enabled, much more accurately than formerly, to determine the seat and progress of nasal catarrh, and to make local applications to the mucous membrane covering the turbinated bones and septum, which are the parts especially liable to take on ulceration; and it is here also that we find the greatest thickening and hypertrophy of the mucous membrane, resulting sometimes in the production of mucoid polypi, These polypi owe their production to a circumscribed hypertrophy of the mucous membrane, which is especially concentrated upon the glands. The principal mass of the tumor is formed by hypertrophic glands, and it is attached to the mucous membrane by a more or less distinct pedicle.

The treatment of nasal catarrh heretofore has consisted in the application of nitrate of silver, and in the use of astringent injections, together with the employment of various snuffs containing mercurials, tannin, alum, zinc, lead, etc., all of which have signally failed to accomplish radical cures. The first indication evidently in all cases is to build up the patient's system, and, for this purpose, preparations of iron and quinine, with the use of cod-liver oil, combined with iodine in scrofulous cases, will generally suffice, toning up the system and aiding materially the local treatment. The first thing to be accomplished in the local treatment is, to clear out the nasal passages, anteriorly and posteriorly, in order to prepare the nasal mucous membrane for medication; and to this end, Thudicum's nasal douche, or the posterior nasal syringe, may be used with a warm saline solution, containing sixty grains of the chloride of sodium to the pint of water. This operation will have the effect of clearing the nasal cavities of the accumulations of crusts, and will leave the surface of the mucous membrane clear and free for the local applications. After the nasal mucous membrane has been thus prepared for the reception of medication, a solution of nitrate of silver may be applied thoroughly to the entire surface of the nasal cavity, which will have the effect of diminishing the thickening and congestion of the mucous membrane. This application is recommended to be followed by the propulsion of the vapor of iodine into the nasal passages anteriorly, by means of an instrument similar to that devised by Dr. Roosa, of this city. The instrument used by the writer is made of hard rubber, having a cavity filled with sponge which is medicated with the tincture of iodine. Upon one end of this hard-rubber apparatus is attached a nasal tube fitting into the nostril, while to the other extremity is attached a soft-rubber bulb with a flexible tube. By compressing the bulb, atmospheric air, or steam if desired, is forced through the hard-rubber apparatus containing the sponge saturated with iodine, and diffuses the vapor of iodine throughout the entire extent of

the nasal cavities, exerting a powerful alterative and curative effect upon the mucous membrane of the nasal cavities and Eustachian tubes ; and especially in cases of swelling and hypertrophic thickening of the mucous membrane covering the turbinated bones and septum. After a very few applications have been made, a very free flow of serum will be induced, and the sub-mucous infiltration will be much lessened. The sense of hearing, which is often impaired by the extension of the catarrhal inflammation to the Eustachian tubes, will often be restored by these applications, after the flow of serum has relieved the congestion and swelling of the mucous membrane. The sense of smell, which in chronic catarrh is often entirely obliterated, is also restored as the mucous membrane returns to its normal condition. These applications can be more or less prolonged as the cases are more or less advanced in character ; fifteen minutes, however, being considered by the writer a sufficient length of time, if the applications are properly made. The use of the nasal douche should precede each application. A snuff, composed of equal parts of finely-pulverized camphor and white powdered sugar, is also given to the patient, with instructions to use it *ad libitum ;* and patients are unanimous in their expressions of relief subsequent to its use. The preceding, together with the use of injections, and sprays of sulphate of zinc or copper, constitutes the writer's treatment for nasal catarrh in the acute and chronic forms, and it has proved equal to the cure of several very obstinate cases which had been considered incurable.

The following cases serve to illustrate the success of the plan of treatment recommended.

William C., fourteen years ; occupation, school. Duration of disease, three years. Previous treatment consisted in applications of various catarrh-snuffs, which had done no good. There were complete anosmia and partial deafness, owing to the lining membrane of the Eustachian tubes having become affected by the extension of the inflammation into them. Enlarged veins could be seen on the posterior

pharyngeal wall. Examination anteriorly with nasal speculum revealed a congested and swollen condition of the mucous membrane, with considerable infiltration. At the posterior part of the right nostril could be seen, projecting into the nasal cavity, a small mucoid polypus, which occluded the nasal passage considerably, preventing the free nasal respiration which should take place. Rhinoscopic examination revealed a very red and thickened appearance of the mucous membrane covering the turbinated bones, particularly the middle and lower ones, and also the septum. The secretion from the nasal passages was composed of mucus, and at times was muco-purulent in character. The patient had lost all power of distinguishing different odors, and his voice had acquired a strong nasal twang. He was obliged to keep the mouth open during respiration, owing to the partial occlusion of the nostrils by the hypertrophic thickening of the nasal mucous membrane, and the presence of the small polypus before alluded to. The treatment was commenced by a very thorough use of Thudicum's nasal douche, with a warm saline solution. This resulted in the detachment and expulsion of a large occumulation of crusts of inspissated mucus.

After this operation the mucous membrane of the nasal cavities was painted over with a solution of nitrate of silver in glycerine, sixty grains to the ounce. On the following day the nasal douche was again used, and the operation followed by the propulsion of the vapor of iodine by means of the instrument previously described. After this application the patient complained of a slight burning sensation, which soon passed away After the fourth application of this character, there was a very free flow of serum induced, which relieved the patient greatly, diminishing the swelling of the mucous membrane. The patient was given a snuff, composed of equal parts of pulverized camphor and powdered sugar, to be used by him *ad libitum;* and three successive boxes were given him, as he seemed to be so much relieved by its use. The small mucoid polypus was

twisted off, and the attachment of the mucous membrane cauterized with the nitrate of silver. Upon microscopical examination this tumor was found to consist principally of enlarged glands, the remainder being mucous tissue. The above-mentioned treatment was persisted in for three months, the use of the nasal douche preceding each application of the iodine. At the end of that time the swelling of the mucous membrane, together with the discharge from the nasal passages, had entirely disappeared. Nasal respiration was re-established, the partially-obliterated sense of hearing reappeared, and the sense of smell at the termination of treatment was normally acute.

Elizabeth G., eleven years of age; duration of disease, eight months. Rhinoscopic examination revealed congestion and swelling of the mucous membrane of turbinated bones and naso-pharyngeal cavity, but no apparent thickening. There was excessive secretion of mucus, and partial loss of smell. The nasal douche was used, and the nasal cavity painted over with the following:

R. Iodini,	gr. vj.	
Potass. iodid.,	gr. xij.	
Glycerin.,	oz. ij.	M.

This was followed by the propulsion of the vapor of iodine, applications being made every other day, and in a little less than three weeks the disease had yielded completely to treatment, and the patient was discharged. During the treatment of the above-mentioned case, the patient, being insufficiently nourished, was put upon a mixture of cod-liver oil and syrup of the iodide of iron. The camphorated snuff was also given her to use.

Another case, in a boy sixteen years old, was complicated with glandular enlargements at the vault of the pharynx, to which the writer's attention was drawn from the patient's complaint of the constant dropping of mucus from "the roof of his mouth," as he expressed it. Upon rhinoscopic examination there was seen to be, in the naso-pharyngeal cavity, lying between the orifices of the Eustachian tubes,

an irregular chain of highly-congested glands, whose free extremities depended from the vault of the pharynx. These vegetations were covered with a copious secretion of mucus, which kept dropping constantly into the back part of the throat, and were expectorated by the mouth. Upon removing the adherent clumps of mucus with a sponge, a few small drops of blood exuded from the fungoid mass, showing that it was very vascular, These growths encroached somewhat upon the orifices of the Eustachian tubes giving rise to a considerable deafness. As the growths were too small to be crushed, or torn off by forceps, as is recommended by Cohen, Meyer, and others, they were cauterized by means of nitrate of silver, and daily injections of sulphate of copper (ʒ ij. ad aquæ oz. j) were employed, which caused their destruction and disappearance. The patient was then treated in the usual way for his nasal catarrh, which soon disappeared, the principal difficulty residing in the glandular hypertrophy.

Many cases of simple acute catarrh have been treated at the outset by the simple propulsion of the vapor of iodine, and the administration of a full dose of some diffusive stimulant, such as muriate of ammonia, opium, hot punch, etc., at bed-time, with the result of abating the attack in two or three days.

According to the writer's experience, if cases can be seen at the outset, or before thickening of the mucous membrane has taken place, they can be easily cured, while cases of long standing invariably require protracted treatment for the accomplishment of a thorough cure.—*New York Medical Journal.*

On the disease of Carpenters. By PETER EADE, M.D., F.R.C.P., Physician to the Norfolk and Norwich Hospital.

(Read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August, 1864.)

The present communication will be a short one; but I have thought it worthy of production on the present occa-

sion, because I believe it to describe an affection quite distinct in itself, though hitherto unnoticed by writers, or at all events, not separated by them from kindred or allied disorders.

It is well known that undue or too prolonged exertion of any part of the body is apt to be followed by an exhausted or more or less paralytic condition of the overworked part; and also that this precise condition may vary in every degree from simple weakness to a more or less complete loss of the function of the affected part. It is also familiar to us that the affects of such an exhausting or paralysing cause may be produced not alone at the special part itself, or even at the central-point of implantation of the nerves passing from it, but also, and still more, by reflected action at other points, either contagious to the affected centre or at the periphery of nerves afferent from these adjoining parts or their connections.

Carpenters, it is well known, in a certain class of their work, use their hands and arms pretty continuously; and not only so, but in a very monotonous way—as, *e. g.*, in planing an hand-sawing; so that the same set or sets of muscles are often constantly and continuously called into action. I have ascertained that, in an ordinary way, they do not suffer from their peculiar work—probably because it is commonly much varied; and I therefore conclude that special circumstances or conditions are necessary to induce such evil results.

R. N., aged 52, married, a carpenter, first came under observation in March, 1870. He had enjoyed excellent health until about five months before this, with the exception that, in November of the previous year, he had suffered for a short time, and without known cause, from slight weakness and tremors of the muscles of the face and tongue. These symptoms, however, quickly passed off, and he remained quite well until October 1869. At this time, he began to complain of pain and numbness of the fingers and hands on both sides, extending as high as the wrists; and, not long

after this, he began to be troubled with shortness of breath, made worse by any exertion ; and this was soon followed by a slight cough and expectoration, the latter once or twice tinged with blood. He also said that he felt generally weak, and was unsteady about the knees on standing or walking.

At the time of his admission to the hospital, the numbness and aching of the hands and the shortness of breath were his principal symptoms. But he still had some trifling cough and spitting ; and, though his body was well nourished, he was evidently weak in all his limbs, and had a fidgety nervous manner. The respiratory murmur was found to be weaker on the right than on the left side of the chest ; but no other abnormality of the lungs, and none of the heart, could be detected. There was no disease or disorder of any other viscus. I ascertained that he was a quiet steady living man, perfectly temperate, not a great smoker, and free from any suspicion either of venereal disease or of lead-poisoning. His temperature was not above normal ; and he had previously been very healthy and strong, and by no means of nervous temperament.

The only probable explanation of his symptoms appeared to be this. He was a carpenter in a small way of business, with a family dependent upon him, and of an anxious turn of mind. As such, he had been accustomed to work long and extra hours, to save the cost of hiring assistants, and in consequence had greatly fatigued himself in his various kinds of manual labour.

I shall not detain you with any lengthened history of this case, but will merely say that this patient has been under my observation from 1870 until the present time, a period of nearly four years. During this time, he has very slowly improved, and is now so much better that almost the only remaining symptom is shortness of breath ; and he has been able to resume his occupation so far as to do some of the lighter work of his trade.

Soon after this case came under my observation, another and similar one, also in a carpenter, occurred to me ; and

still later, a third case, with almost identical symptoms, presented itself in the person of a labourer who had overworked his upper extremities by prolonged digging. Of all three, I may say shortly, that they all presented very similar and closely allied symptoms, one of the most prominent of these being the free secretion of a whitish mucus, apparently from the mouth, the throat, and the air-tubes, but without much cough, and without any distinct chest disease. Other symptoms have been, shortness of breath; vague pains and discomforts in and across the chest, either limited to this part or extending upwards to the neck and face and head; sensations of dorsal chilliness or tremor, but scarcely any distinct spinal tenderness; and in all a peculiar nervousness and fidgetiness of manner.

I would now add that since this paper was announced, a fourth case, evidently of the same class, has come under my care. This man, like the last, was not a carpenter, but had worked as a "navvy", in which capacity he had of late strained his arms severely—first in throwing earth into railway-waggons, and afterwards in barrowing heavy loads of soil all day—the effect of which at the time was to cause much numbness and aching weakness in and all along his arms.

It will be seen from this history that, of my four cases, only two were carpenters. The title, therefore, of this paper, is plainly not sufficiently comprehensive, seeing that other workers besides carpenters are liable to it. But, as my first and most typical case, and the one which is the foundation of this communication, occurred in a carpenter, and as the work in which carpenters are engaged is so especially arm-work, I have not thought it necessary at the last moment to alter it, believing that this term not inaptly expresses the nature of the disorder from which they have all suffered. No doubt its exact nature is irritation, followed by exhaustion, of those portions of the spinal cord from which the nerves of the brachial plexus arise; in other words, it is an erethism of this plexus and of its related cer-

vical ganglia, with reflex disturbed action of other parts whose nerves are in connection with these cervico-dorsal nerves.

I believe that it has been noticed that sawyers working long hours in sawpits are liable to get a weak or semiparalysed condition of the muscles of the upper extremities. It is also well known that cramp and a species of palsy are apt to follow continued over-exertion of the limbs in several classes of workers, as in the writers' cramp of clerks, the thumb and forefingers of writers, and the arm-cramp of smiths (described by Romberg, Russell Reynolds, and others); but I think that, although these affections are more or less allied in their nature, there is an essential difference between them and the one I am describing, in that in writers' cramp the muscles of the arm are the parts chifly affected, whereas in these cases, beyond the trifling initial weakness and pain of the hands and arms, the effects are produced in parts distinct from the limbs, and are such as show that the ganglionic system is the one specially affected.

An analysis of the symptoms shows that they extend over a considerable distance—indeed, from the head above, through the cervical and dorsal regions, as low as the level of the epigastrium ; and that, though the greatest amount of effect is produced at the level of the upper part of the thorax, yet that the discomforts elsewhere felt are by no means insignificant. In some degree, the peculiar nervousness and sensitive condition approximate to what is seen after concussion of the spine, and are not very unlike what I have witnessed as following a railway accident.

It is, I think, probable that the effect of such work as carpenters and navvies sometimes perform may be somewhat akin in its jar and concussion to that of a blow or injury to the spine ; and that, although in the one caae the shock is less in amount and more prolonged, instead of, as in the other, sudden and violent, yet the eventual effect may be the same in kind in the two cases ; viz., the produc-

tion of a condition of weakness, hyperæsthesia, and loss of functional power. Perhaps in some slight degree, also, this affection may be likened to that produced in women by excessive use of the foot sewing-machine, in whom it is well known that irritability of the spine and pelvic irritation are frequently set up by its employment.

A curious fact has been announced by Dr. B. W. Richardson; namely, that a subclavian murmur is almost universally present in carpenters and in men who work as they do. In one of the patients above alluded to, it was very distinct; and it would probably be due to the same class of cause as the affection I am describing.

As to treatment, I have tried very various forms of remedies—tonics, bromides, ice to the spine, faradic and galvanic electricity; but nothing except prolonged rest has appeared to be of any material value.—*British Medical Journal.*

Rigor Mortis in an Infant at Birth. By W. C. Gricg, M.D. Assistant Obstetric Physician to the Westminster Hospithal.

The following case appears to me to be not without interest in relation to the etiology of rigor mortis.

On the evening of August 16th, I was sent for by one of the mid-wives of Queen Charlott's Lying-in Hospital to see a woman (a multipara) with placenta prævia. Labour began at 6 P.M. with a discharge, which continued with each pain. On the arrival of the midwife, the os was found about the size of a sixpense, but the presentation could not be distinctly determined. At 9.30, severe flooding set in, which lasted about half an hour. The os was now dilated to the size of a half-crown; across the anterior portion, a soft thick substance was felt. When I reached the woman, a little before eleven, the hæmorrhage had nearly ceased; the os was fully dilated, and the mass was clearly a portion of the placenta. As the membranes were intact, they were

ruptured ; and in a few minutes the child was born. The after-birth came easily away five minutes afterwards, and, with it some clots, so firm that they felt like pieces of flesh, requiring some force to break them down. There was slight *post partum* hæmorrhage. The child was quite livid ; the arms were folded on the chest, and the thighs flexed on the abdomen. The jaw was firmly fixed ; so was the head and the extremities. The abdominal walls were flaccid, but the back was partially set. It was with the greatest difficulty I could get my finger into the mouth ; and in order to extend the extremities, the body of the child had to be firmly held.

The woman stated she received a severe fright the previous evening, but believed she was at her full time. The movements of the fœtus were so troublesome that she slept little that night. It was last noticed at about 4 P.M., two hours before labour set in. The hæmorrhage was nothing to speak of until about 9.30, when it became very severe, but only lasted about half an hour. She was confined shortly after 11 P.M. When seen, she did not present the appearance of having lost much blood. No ergot had been given. I think it may be fairly presumed that death of the fœtus took place during the excessive loss of blood—i. e., about an hour and a half before its birth. It has been my misfortune to have been present at the birth of many still-born children, whose deaths have varied from minutes to days before birth, but I have never before seen a fœtus with rigor mortis at birth. It would be interesting to know if any other practitioners have met with a like case, and if so, what were the circumstances attending each case. Here the woman had received, on the previous evening, a severe shock ; there were partial placenta prævia, severe flooding only for about thirty minutes, delivery in an hour afterwards, and the blood coagulating rapidly and very firmly.—*British Medical Journal.*

Coal Gas Poisoning.

Although cases of poisoning have from time to time occurred such as those related in the pamphlet before us, very few of them have been carefully recorded. It is somewhat singular that the July number of the *Edinburgh Medical Journal* for this year, and the first number for July of the *Berliner Klinische Wochenschrift* should simultaneously contain articles on this subject. The latter will be found by English readers in a condensed form in the *London Medical Record* for August 5th, (No. 83, vol. 2). the former is reprinted with some additions, forming the pamphlet now before us. Dr. Taylor first relates the case of a Canadian, between 50 and 60, who was found livid and insensible in a bedroom in one of the Edinburgh hotels. It appeared that *he had blown out the gas* instead of turning it off, and had thus inspired a mixture of gas and air, which amounted to some three per cent. only, or about 1 in $33\frac{1}{2}$. Efforts to resuscitate him were so far successful that he survived nearly two days. Unfortunately no *post mortem* examination was allowed. The pamphlet is not confined to a very careful record of the symptoms in this case, but contains accounts of several others, and more particularly of the suffocation of a whole family (a foundry labourer, his wife, who was *enceinte*, a girl aged two, and a boy aged 8 years), at Dundee. Besides this there is an abstract of the Strasburg case, in which six persons—father, mother, two sons, a daughter and a servant, were exposed for nearly forty hours to the deleterious effects of a gas containing unusual quantities of carbonic oxide. Of these, four were found dead, and, after 19 hours, one only, the mother, survived. The original account of these cases is in French (Relation Médicale des Asphyxies Occasionées à Strasbourg par le Gaz de l'éclairage, par G. Tourdes, Professeur de Médicine Legale à le Faculte de Strasbourg), and is little known in this country. Dr. Taylor has, therefore, done well in giving an abstract of its chief points of interest. I

appears that the woman who recovered was insensible forty hours. She had hemiplegia on the right side. Her recovery was very tedious. The principal *post mortem* appearances in the four fatal cases were as follows :—*Brain* and its membranes highly congested. Intense redness of surface. *Air passages* also strongly injected, filled with whitish, viscid, frothy foam, with sanguineous streaks. *Lungs*: in all the cases intensely red throughout their parenchyma. *Heart*: blood clotted, especially in right auricle. *Liver*: blood very red. *Bladder*: distended, with an enormous quantity of limpid urine. The morbid phenomena are thus classified: 1st, insidious invasion. 2nd, headache and vertigo. 3rd, nausea and vomiting. 4th, absolute loss of consciousness (and anæsthesia]. 5th, general debility, prostration of strength, partial paralysis, and convulsions, 6th, phenomena of asphyxia appearing slowly, but complete and predominant during last moments of life. Dr. Taylor's recommendation to turn off the gass at the main, or at all events, at the meter during all the hours of daylight, scarcely strikes us as practical or practicable in large cities. His advice to avoid all flexible fittings, to discontinue the use of gas in bedrooms, and to take care of due ventilation wherever it is burnt, is more easily carried out. It strikes us that the thorough purification of coal-gas is of more moment, for carbonic oxide in these cases, and sulphuretted hydrogen in some others appear to us to have been the chief causes of the fatal results. But the discovery of some sufficiently cheap and brilliant substitute for coal-gas is the real desideratum, and this we fully believe we shall some day obtain by some modification of the present electric light. As most of our manuals of medical jurisprudence and toxicology make little or no mention of the subject, we strongly advise students who intend going in for honours in this subject to procure Dr. Taylor's little pamphlet.—*Students' Journal.*

Dr. Sée on Belladonna and Nicotine.

Dr. Sée, in a lecture at the Hospital de la Charité, says that atropine is the most complete antagonist of muscarine, that cardiac medicine spoken of by O. Schmiedeberg in 1869. Six or seven years ago, Meuriot, one of Dr. Sée's pupils, noticed that atropine caused acceleration of the movement of the heart. The ganglia which terminate the pneumogastric nerve are paralysed. If muscarine and atropine are successively employed, we notice that the heart, arrested by the effect of the muscarine, begins to palpitate with atropine; but muscarine cannot arrest the palpitation of an atropised heart. The paralysing action of atropine on the pneumogastric is, then, very energetic. Atropia has besides the power of exerting the blood-vessels and making them contract rhythmically. To this commencing contraction of the vessels let us add the most remarkable effect of this drug, the dilatation of the pupil, which takes place from contraction of the dilating muscle, excited by the sympathetic. There is also paralysis of the sphincters, of the pharynx and larynx, and of the voluntary muscles, with impaired sensibility.

Nicotine is the neutral principle of tobacco, and is a vascular poison above all, but also a cardiac poison. If a small dose of nicotine be injected into an animal, we notice first a retardation of the heart's action, and next, augmented pressure in the vessels. If the animal be opened, the vessels are found contracted. There is, in a word, enlargement of the vaso-motor nerves, and of the vessels, and also tetanic rigidity. When there is a strong dose of nicotine, we notice the inverse; the heart's action becomes accelerated because, then nicotine acts like atropine, by paralysing some part of the suspending system. Ordinary smokers have palpitations, or slow pulse sometimes, 48 pulses per minute, with intermittences; extravagant smokers speak of palpitations with rapid pulse, 130, 140, 150 pulsations per minute.

Roux, an old professor of the Faculté de Médecine, considered that smokers were "gredins;" but that was forty years ago. Muscarine, when injected, will lower the pulsation caused by nicotine.—*The Doctor.*

Death from Idiopathic Rupture of Spleen. By EDWARD ATKINSON ESQ., Surgeon to the Leeds General Infirmary.

A lady, aged 35, of middle height, stout, married only five months, highly hysterical, had never been quite well since her marriage. She had menstruated regularly, but had irritable stomach, with frequent attacks of vomiting, and sometimes suffered considerable pain in the gastric region. She had been under the treatment of my friend Dr. Young for four or five weeks for these symptoms, which had been alleviated, and she was considered to be convalescent. *She never had enteric fever.* On the evening of August 5th, 1873, she was suddenly taken ill after eating herring, and was attended by Dr. Frobisher. Violent retching continued from 9 P.M. till noon next day, and was followed, after the first hour or two of sickness, by acute pain in the left side, which rapidly spread over the whole abdomen. At noon she sank into a state of collapse. When I saw her at 4 P.M. with Dr. Frobisher, she presented the appearance of a person in the last stage of Asiatic cholera—cold, restless, pallid, blue lips, pulseless at the wrist, whispering voice, clammy sweat, but no diarrhœa. Was it gall-stone, intussusception, internal strangulation, or rupture of an aneurism? One thing was evident—that death was inevitable. She died at 5 o'clock, twenty hours from the commencement. With great difficulty, a necropsy was obtained, and was made two days after death by myself in conjunction with Drs. Young and Frobisher. The body was very fat. There were two inches of fat in the parietes, besides a thick subperitoneal layer. The abdominal viscera were bloodless. A large clot, several pounds in weight, overlapped the lower edge of the great omentum and filled the left side of the abdomen; beside which, there was a large quantity of dark fluid blood. There were no adhesions, or signs of effused lymph, or of peritoneal inflammation anywhere. On tracing up the blood to its source, it was found to issue from a rent in the gastrosplenic omentum

which was distended into a large pouch. On enlarging the opening, more clot and fluid blood escaped, and then the spleen was seen, shrunken, pale, flabby, and its lower portion disintegrated and in a state of muddy pulp. The stomach and duodenum contained no ulcer or other unhealthy appearance. The liver was pale, flabby, and very friable. The kidneys were healthy. The gall-bladder and duct were devoid of calculi. The thorax was not opened. The only similar case of which I ever heard, or of which I have been able to find record, is one which my friend Dr. Deville of Harrogate communicated to the Branch meeting at Scarborough last year.—*British Medical Journal.*

Slight Injury to Leg; Sudden Death; Thrombi in Right Ventricle from Popliteal Vein. By A. B. SHEPHERD M. A., M B., Assistant-Physician to St. Mary's Hospital, etc.

The following case presents many points of similarity to those lately published in THE LANCET by Surgeon Thomas Browne, M. D. June 27th, 1874, p. 901), and Mr. Geo. G. Gascoyen (Aug. 8th, p. 189). For the life-history I am indebted to Dr. Stewart, of Southwick-street; for the post-mortem notes I am entirely responsible.

R. G.——, aged forty-nine, a healthy, spare, though largely-made man, of active and temperate habits, slipped, on June 1st, 1874, through the rounds of a ladder, and abraded his left shin. Under ordinary treatment the wounds so caused almost entirely healed. On the twenty-first day after the accident, while going up stairs, he fainted and fell, without suffering any apparent injury. Three days later he had a rigor, followed by well-marked signs of simple pleurisy on the right side, the diagnosis being confirmed by Dr. Walshe, who saw him whilst suffering from the attack. On the thirtieth day after the accident, he fell down while dressing, and died.

The autopsy was made forty-eight hours after death. There was most extensive decomposition of the head, neck, and upper extremities, the superficial veins being much discoloured. There was no great decomposition of the body externally below the level of the diaphragm. All the organs were healthy, but very much decomposed. The blood throughout the body, with the exceptions noticed below, was fluid. Coiled up in the apex of the right ventricle were three moulded clots, one showing most beautifully the impression of vein-valves. Two of these clots exceeded 7¼ in. in length each. Only one very small clot, soft and recent, was found in a branch of the pulmonary artery. The subclavian, jugular, iliac, and femoral veins, and the cava were carefully examined. The left internal saphena was removed from two inches below the original wound to its entrance into the femoral, and the latter itself to below the popliteal, vein. On slitting up the saphena, the coats of the vein below the region of the wound were found to be perfectly normal, semi-transparent, and drying rapidly on exposure to the air. Nearer the wound its coats cut more rottenly, and where the smaller veins from the wound entered it, it was dilated. From this point upwards. its internal coat, as well as that of the veins from the wound, and of those dipping down to the deeper vessels, was intensely red, more than bloodstained, swollen, and moist, even after long exposure to the air. The same was the case with the femoral and popliteal veins ; the coats of the latter were greatly swollen, and injected a dark, black-currant colour : and in the popliteal vein itself lay the debris of a clot, non-adherent to the vessel-wall, and extending for more than three inches from above to below a pair of valves, the same, in all probability, which had left their impression on the clot in the right ventricle.

The heart-clots, together with the veins engaged in the morbid process, are preserved in the Museum of St. Mary's Hospital,

Remarks.—It is impossible to add much to the simple in-

terest of this case. The very slight injury to the leg ; the consequent thrombosis occurring in the vessels running from the wound, unacompanied by obstruction, œdema, or pain in the limb ; the dislodgment of the clots and of portions of them ; the fainting-fit, due either to pulmonary embolism, of which, however, no sign was found, or to the presence only in the ventricle of a clot or clots ; the pleurisy, also probably embolic ; the sudden death, due to the thrombi in the heart; such was the succession of events. The first seat of the *original* thrombus must remain a matter of speculation. One of the clots removed from the heart shows, by its concentrically deposited layers at one end, that it is a *prolonged* thrombus, much increased in size since it commenced to travel, and the marked signs of morbid action throughout the course of the saphena, popliteal, and femoral veins, make the original starting-point more doubtful still. Most noteworthy is the agreement of the valve-impressed thrombus in the heart with the position of the less firm clot found in the vessel. *The Lancet.*

Two Cases of Diastasis in Adolescents. By CLEMENT DUKES, M.B., B.S. Lond., Medical Officer to Rugby School.

Case 1.—Mr. X., aged 18, on December 10th 1872, while playing in the close at the school, was pushed on the outer side of his right leg while his legs were extended laterally from the median line, when he suddenly felt acute pain above the knee, and fell down ; and the limb was powerless.

On examination, the knee-joint was not swollen. No distortion was perceptible to the eye. The leg lay powerless on the bed. The foot was neither twisted nor everted. The limb was slightly shortened on measurement. On taking hold of the limb, no crepitus could be elicited, nor any movement, though pain was felt, whichever way it was moved. On slightly flexing the leg, a rapid movement in the limb was felt, like two smooth surfaces passing quickly

one over the other. The situation of this rub was found by a slight depression being felt about two inches above the knee; and the lower bone could be felt slightly prominent posteriorly on the upper part of the popliteal space, being rotated a little backwards by the gastrocnemius. The diagnosis was made of diastasis, or separation of the condyles from the shaft of the femur. This epiphysis is the last to unite—viz., at twenty years.

Treatment.—The difficulty was to keep the surfaces of the bone accurately together, owing to their slippery nature:

1. A suspending thigh-splint with pulleys was first tried, but without success.

2. The straight "long outside" splint, with perineal extenders, was then applied with better success, but not complete.

3. To the "long outside" was added a small straight back-splint with a pad sewn on it, to keep the lower end from slipping backwards. The perineal band was moved, and extension kept up by a weight passing over a pulley at foot of bed.

By this means, a firm union was obtained at the end of six weeks: the limb was of full length; and he was allowed to get up.

On examining the limb, no one could have told that there had been a disunion; for there was not the slightest thickening at the seat of injury; no provisional callus being thrown out as in fracture, union being effected in the cartilage. Fearing lest this should not be strong enough at the end of six weeks to support a tall strongly-built youth, I made a leather case, which he wore for a week or two.

Case 11. Mr. T., aged 16, on July 4th, 1874, for three months had had a little pain at the inner side of the arm at the elbow, when exercising in the gymnasium. This culminated in an injury there, through a fall from the horizontal bar while performing the exercise called "back away". His account is, that he kept hold of the bar with his hands

too long, so that in the turn, instead of alighting on his feet as usual, he fell on "all fours", with his arms extended; but the force was sufficient to make the left arm suddenly flex outwards. He felt something crack, and cause him pain at the elbow and a feeling of faintness.

On inspection, the arm was held stiff, neither flexed nor extended. There was a swelling over the internal condyle of the humerus, like a swelled bursa, making the condyle appear very prominent. Immediately below this, instead of the usual convex contour on the inner as well as the outer side of the forearm, there was a considerable hollow or concave outline, with slight extra thickness of the muscles of the forearm antero-posteriorly. Owing to this the outer contour of the forearm seemed increased in convexity, but was in reality normal when the two arms were compared; thus dispelling the idea of a dislocation of the radius and ulna outwards, which it resembled at first, from the prominent inner condyle with the depression below.

On manipulation, flexion and extension were perfect and almost painless; also rotation internally and externally; but, when the palm of the left hand was placed over the inner condyle, and the arm moved, great pain was elicited. On manipulating over the inner condyle more minutely, a morsel of bone could be felt, freely movable when laid hold of with the fingers, causing no crepitus, but moving easily and smoothly, and distinctly external to the joint; being a separation of the internal epicondyle from the humerus, caused by muscular action through the forcible flexion of the forearm on the arm. There was no injury of the ulnar nerve. The inner condyle of the humerus unites at the age of eighteen.

Treatment.—A rectangular splint was applied, and a figure-of-eight bandage and a pad on the elbow. Position and union were effected well.—*British Medical Journal.*

CANADA

Medical and Surgical Journal.

MONTREAL, NOVEMBER, 1874.

THE MONTREAL GENERAL HOSPITAL AND ITS SMALL POX WARDS.

We have on a former occasion called attention to the danger which arises to the inmates of General Hospitals by having an attached building for the treatment of small-pox. With regard to our own hospital we have reported on several occasions the spread of small-pox into the general wards and we have repeatedly advised the governing body of our hospital to close their small-pox wards and refuse to admit patients suffering from that disease Whenever we have suggested this desirable change, we have been met by the statement that it is contrary to the Act or Statute regulating General Hospitals, and therefore until an amendment to that Statute is effected the small-pox wards of the Montreal General Hospital must remain where they are. We would call upon our Local Parliament at its next Session to consider the advisability of amending the first clause of the Act bearing on this subject. It is to be found in the Statutes of Canada for the year 1861, being the 24, Victoria Cap 24, and assented to the 18th May 1861, it reads as follows:—

" No warrant shall hereafter issue for the payment of any " sum of money granted by the Legislature to any hospital, " unless, nor until a certificate signed by a medical officer " of such hospital, to the effect that there is in such hospi- " tal a distinct and separate ward set apart for the exclusive " accommodation of patients afflicted with small-pox, has " been filed with the clerk of the Executive Council."

We will not refer to the time when this clause was enacted, but merely observe that if the legislators of that day desired

by the introduction of such a clause, to prevent the spread of small-pox, that the experiment has been tried and has signally failed; the disease is not thereby prevented from spreading among the people at large, nor is the isolation sufficient, at least in the case of the Montreal General Hospital, to prevent its spreading into the general wards. No person can speak more positively on this subject than the writer. He is one of the attending medical staff of the Montreal General Hospital and since the year 1867 has performed his duty during the first winter quarter, that is, during the months of November, December and January up to the year 1870 when a change took place and his months of attendance have been since that period October, November and December in each year. During his attendance he can call to mind the occurrence of small-pox in patients under his charge suffering from some minor complaints and in many instances the sufferers have paid the forfeit of their lives. It will thus be observed that the usefulness of a noble charity is to a certain extent marred, a gross wrong done to those seeking its benefits, the attending surgeons and physicians seriously interfered with in their work of philanthrophy and the spread of a highly contagious disease permitted to go on unchecked.

In a recent visit abroad, we ascertained the practice followed in other countries. In Scotland we found that small-pox when it occurs is not admitted into any general infirmary. A separate and distinct building, apart and entirely isolated, is allotted to such a class of disease. In the Glasgow Infirmary what was once used as a Fever Hospital is at present, or at the time we visited it in August last, devoted exclusively to surgical cases. We were informed by the attending surgeon that a separate and distinct building in another quarter of the city is devoted to the exclusive use of small-pox and other highly contagious maladies. The same may be said of Edinburgh and London. In the latter city there is a separate and distinct small-pox hospital; we believe there are eight, or rather that eight separate buildings were used

exclusively for small-pox during the recent epidemic of 1870 and 71. What is the result of such precautionary measures? We find that during the first three months of the epidemic of 1870 and 71, London suffered a mortality from small-pox alone of over three thousand persons. By persistent efforts at isolation, by vaccination, and the strict enforcement of sanitary regulations there is not at the present day a single case of small-pox reported as occurring in the Metropolis, nor has there been a single death from small-pox in London for several weeks past. This is a surprising fact when it is considered that London possesses constantly a large rolling population of strangers who hail from all countries in the world, whose residence is brief, who come and go and their place is filled by others as rapidly as they leave.

In the name of common sense then, why should we in Canada, and in this large city permit a state of things to exist amongst us which should bring a blush of shame to any civilized community. It would be well for our Local Legislature to consider and deal with this subject. By a verbal alteration in the clause above referred to the governing bodies of general Hospitals would not be forced to keep attached to their institutions, wards for the "exclusive accommodation of patients afflicted with small pox," and in our own city we should be glad to see the small pox wards of both our general hospitals done away with.

We have heard much about a fifty thousand dollar grant munificently made by our city corporation, but there the thing ends. It does appear that the insanity of folly has fallen on our civic authorities, admitting the want of a small pox hospital, they voted $50,000. Then, for fear that some imaginary citizen should make a fortune out of this grant they determine to divide the amount so as to give the city of Montreal two sectarian institutions for the treatment of small pox. This not proving acceptable to the citizens, in their wisdom, the city corporation has decided to leave us without any hospital for the treatment of small pox. We think that in the present emergency the Government might

order the Corporation of our city to provide the necessary accommodation within a stated time, failing which, it should be done at its cost and charges. It is only by some prompt action of this nature that our Corporation will be roused to a sense of its duty.

SANITARY AUTHORITY.

In a recent speech at Manchester the British Premier, Mr. Disreali, is reported to have said "I think public attention should be concentrated on sanitary legislation. I cannot impress upon you too strongly my conviction of the importance of the Legislature and Society uniting together in favour of those important results. After all, the first consideration of a minister should be the Health of the people." Surely, if this applies in England, how much more in Canada. In England for many years past much extended and thoughtful legislation has been inaugurated bearing upon the enforcement of sanitary regulations, whilst here we yet await the laying of the very foundation upon which to rest any legal enactments to provide for the Sanitary Government of the country. Do we Canadians really and truly appreciate the great, the overwhelming, importance of this subject? We find the head of the British Government openly saying with all the emphasis of which he is capable that public attention should be *concentrated* on sanitary legislation. We should be only too glad to hear such words coming from the lips of some leading member of our present Executive at Ottawa. Nothing less than this should satisfy the Canadian public, they should not rest content simply with insisting that sanitary matters should receive a certain share of attention at the next session of our Parliament, but by *concentrating* their attention upon these matters and constantly keeping them agitated through the press and by every other available means, they would ultimately succeed in forcing measures relating to the public health into that prominence which they unques-

tionably deserve. Let us take as an example our own unfortunate city, which, we are sorry to have to confess, has been branded by the daily press, as the "most unhealthy city in the world." With such a climate as we enjoy, with such great natural advantages as regards site, water-supply, &c., as we possess, is it not a crying shame that such a disgraceful stigma should be allowed to go uncontradicted? And, to our disgrace be it said, it cannot be contradicted. For, according to the report of the Health officers received for the month of August, it appears that there were 346 deaths out of a total of 785, (nearly one half) from Zymotic diseases—the most prominent being small-pox, scarlatina, typhoid fever and whooping cough. Now, what means are being taken to put a stop to this outrageous and inexcusable mortality from preventible causes? Let us say at once *none*. We boast a Board of Health, salaried Health officers, and paid Health constables—but of what earthly use are all these when we are plainly told by them that they receive no information concerning the commencement, rise and spread of infectious diseases, and that they have no power to inspect premises, order removals, make improvements, or otherwise interfere to preserve the health of any place or district. The sooner we distinctly understand that there is *no* legal sanitary *authority* in our midst the better, for the more we dwell upon this idea, the more we will be impressed with the importance of concentrating our energies towards establishing such authority for the benefit of the whole community. We learn that one of our city advocates, has in course of preparation a code of sanitary legislation for the city which it is proposed to submit to the City Council, to be by them sanctioned and then made law by Parliament. Of course to prepare such a digest must take some time but we heard of this subject having been submitted to the city attorney for his opinion some months ago, and we would protest against any—the least—unnecessary delay in laying this report before the Council, and we do trust that, in the interests of humanity, the Health Com-

mittee will see to it that the proposed by-laws are at once brought forward for public discussion.

SMALL POX

With the advance of our cold season the disease small-pox appears to have taken fresh root, and is breaking out in all quarters of the city. This increase in the number of cases is due to several causes, the principal amongst which is our own neglect of known sanitary laws, and we might add the reckless, criminal, and trifling incompetence of our civic authorities, in not providing the necessary means for isolating the disease by the establishment of a proper small-pox hospital.

Quite recently a patient left the small-pox wards of the Montreal General Hospital and was taken to one of the charitable homes of this city. We have not heard that the infection has spread in the institution alluded to, but we should not be surprised if such an event were to follow. It may be asked why? Simply because there is no means in our hospital whereby a patient who has recovered from small-pox can be so isolated for a time, and cleansed, as to insure the public against infection. There are no intermediate wards no convalescent wards. The patient who has recovered from small-pox and is fit to be discharged from hospital is sent out directly from the room or ward in which he has gone through his illness. His clothes are brought to him and he has to dress in his ward or in some contiguous room, and he leaves the building carrying with him the germs of this loathsome disease in his clothes, it may be in his breath. This is no exaggerated picture, it is a fact and recent events in the breaking out of the disease in families who suffered no apparent direct exposure attest the fact. We will mention a few other sources, from which the disease spreads. A week or two since a brother practitioner entered one of the many public conveyances, to be found in this city, he had scarcely taken his seat before he recognised in

one of the passengers a respectably dressed woman the mother of a large family three of whom were lying dangerously ill at her house with small-pox, she came fresh from this house and entered a public conveyance carrying with her we do not doubt the germs of the disease in her clothes to be spread about and dropt in every quarter. Not long since another medical gentleman was called to a case of small pox in a child of a highly respectable citizen. No known exposure could be traced by the parents. Our professional friend, however, ascertained that this little girl went to a school in the neighborhood where there were a large number of children about her own age. One of these children came from a house in which several cases of small-pox existed, and, although she did not suffer from the disease, yet she carried the disease in her clothes and thirteen of her little playmates were struck down by small-pox while she remained exempt. We could mention a number of cases of a similar nature if it were necessary, all pointing to the fact of direct communication as the origin of the attack.

Are the citizens of Montreal sincere in their desire to stamp out small-pox? if so, it can only be done by perfect and determined isolation and general vaccination. Vaccination is not in itself an absolute preventive, but where it is strictly enforced and rigorously carried out the disease will, if it does attack the person so vaccinated, appear in a milder form. Isolation will stamp out the disease to such an extent that no single case will occur. If by way of allegory we suppose that persons were in the habit of going about the city with lighted torches so constructed that they left behind them a train of sparks and that in consequence large and destructive fires constantly occurred. What a frenzy of excitement would be produced, Mayors, Aldermen, Recorders, and all the lesser officials of state would be on the alert. These insane persons would be regarded as a public nuisance and they would be sumarily ordered to quench their fire brands or suffer the penalty

that the law prescribes. Is property of greater consequence than human life?

Would it not be better to provide in the present emergency a public hospital to which all cases of small-pox should be sent, but if persons elect to keep their friends at home they should do so with the known alternative of public isolation. Provide for persons afflicted with this horrible disease a fit and proper place where rich and poor alike can be accommodated with all the care or luxury needed or that can be procured, but if they decide on remaining in their own homes let the fact be intimated by a placard placed on the house, under police authority, simply the word Small-Pox in large and legible letters so that those who run may read, and thus give warning to the whole community that such a house is infected with the plague. If this is done and perfectly and absolutely carried out so that no unnecessary communication shall be held with such a house, then we will guarantee that within six months from this date probably within three there will not be left a single case of small-pox to record as occurring in the city of Montreal.

A small-pox Hospital is first to be provided, the City Council have proved themselves silly idlers, it would be well for the citizens to buy a few bags of marbles or spinning tops or any other toy of childish amusement for the foolish incompetents of the City Hall to wile away their time, but as to building a City Hospital for small-pox, the thing is absolutely beyond their ken. If a small-pox hospital is to be built or suitable premises secured to act as a temporary hospital, it will have to be done by the citizens themselves. If this is undertaken at all, it should be done without further delay. A spirit of earnestness and self preservation should guide those concerned in carrying out this work. Valuable lives have been already sacrificed, and others will follow unless some sensible honest and immediate action is taken in the premises.

THE TRAINING SCHOOL FOR NURSES AT ST. CATHARINES, ONT.

About one year ago a young lady entered into an agreement with Dr. Mack to go to England and to return in the spring with a sufficient number of trained nurses and of others who were willing to serve as probationers, to establish in St. Catharines one of those institutions now growing up in all centres of population in Europe and America.

In the month of April, Miss Money, the young lady referred to, returned with four nurses whom she had carefully selected from applicants during the winter. Dr. Mack having also during her absence fitted up and rented a proper abode for them with funds collected from visitors at Springbank and from the ladies of the town, and upon the 1st May the whole undertaking commenced active operations with a staff of five nurses, one being a Canadian, and Miss Money as superintendent, under the designation of "The Gasparin Training School and Nurses' House."

A small hospital of about twenty beds was placed in the hands of the sister superintendent, and the work of training commenced. At Springbank, also, a large hotel sanitorium and bathing house was established. Two of the nurses went on duty every second week, and thus two valuable elements of training were combined, viz., the care of the affluent and the care of the poor, home nursing and hospital nursing, while two of the number were left ready for serving as monthly nurses if required. The cottage hospital being wholly inadequate to its requirements as a "General and Marine Hospital," the Dominion Government, by the strenuous exertions of Mr. Norris, the Member for this County, were induced to make a small grant in aid of the Marine department, and this, with other contributions enabled the Trustees to erect a commodious addition, admitting of about 40 beds in all, and now under the present able management the Charity bids fair to become a perfect "bijou" in the hospital way.

The plan of management of the Nurses' Home is as

follows : each nurse binds herself to serve three years, the first six months free, and after that to receive ten dollars per month and two suits of uniform annually, and comfortable board and lodging at the " Home " when unemployed. The expenses so far have been very small, and have been met by private contribution, two gentlemen, Mr. Fred. Merritt of St. Catharines, and Mr. P. P. Pratt of Buffalo, making the handsome donation of $100 each. Miss Money gives her services entirely free, and having purchased the property where the "Home "now is out of her private means, she gives it up for the purpose at a small rent. This lady was trained by the Countess Gasparin, in honour of whom she has given the name to the Institution. and she is well competent to instruct, having had a large experience during the Franco-Prussian war. Instructions in the principles of Physiology and in General Anatomy will be also given by the Medical Attendants at the Hospital during the winter months.

The monthly and other nurses are in constant requisition, and the want is felt of more nurses, but not of employment for them. It is barely self sustaining now, and by careful management and a little outside assistance there seems to be no doubt that this, the first enterprise of the kind in Canada, will ultimately be crowned with success.

No distinction of religious sect is recognized, the women are only required to be Christian in character and conduct and to comply rigidly with the rules and regulations both of the Hospital and of the " Home."

The canal at present being cut, and the navigation of the old canal give a large number of serious surgical cases, and afford ample scope for the exercise of those desirous to learn.—*Commnnicated.*

The Late Dr. Anstie.—A committee has been formed, which comprises many of the most eminent men in the medical profession, for the purpose of taking steps to raise a fund to be applied in perpetuation of the memory of the late Dr. Anstie. His former pupils will, there is no doubt, assist the movement to the utmost, and we trust that it will be as well supported generally as was the " Web Fund," the total of which amounted to £2,074 1s. 6d. It is reported that Dr. Lauder Brunton will succeed Dr. Anstie as Editor of the *Practitioner.—Students' Journal.*

DR. GODFREY'S CASE OF PLASTIC OPERATION.

(See page 225 "Canada Medical and Surgical Journal" for December, 1874.)

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Extensive Destruction of the Soft Parts near the Angle of the Mouth, from Sloughing after Fever. Plastic Operation; Recovery. By Robert T. Godfrey, M.D., Professor of Surgery, University of Bishop's College, Lennoxville, Attending Surgeon, Montreal General Hospital. (With an illustration).

The following case was admitted into the Montreal General Hospital on the 13th July, 1874, and as it illustrates the beneficial results of plastic surgery, I deem it of sufficient interest to lay before your readers. The history as given by the patient himself is as follows :

William Bouchet, æt. 19, a French Canadian : a strong, well proportioned young man,—some two years ago suffered from an attack of " Typhoid Fever." He was ill for several weeks. In the course of his illness, and towards the close of the fever, his face became inflamed, he suffered much pain of a burning character, soon an ulcerated spot occurred, and the whole of the cheek separated and fell out ; subsequently his teeth loosened, both in the upper and lower jaw, and were taken away by his doctor, together with several pieces of bone ; he made a very slow recovery. Upon examination I ascertained that nearly the whole cheek on the left side had sloughed. The buccal cavity was completely absent. The molar teeth in the upper and lower jaw were gone, as well as a large portion of the alveolar processes. The integument

was adherent to the bones of the face, and there existed a large opening the size of a crown piece, through which could be seen the tongue and the soft palate. The motion of the jaw was limited, and although he was quite able to pass into his mouth a good sized ball of food he could not masticate properly. He experienced great difficulty in guiding his food, when masticated, into the pharynx, as it would pass out through the opening unless prevented by his hand. This rendered him very miserable, as anything like liquid food would run down his jaw and the side of his neck, and occasionally produce excoriations. The lips were entire ; the angle of the left upper lip was curved upwards and inwards and was attached to the superior maxilla, while the lower lip curved downwards and was attached to the inferior maxilla. At the upper and outer part of the gap there existed an opening into the antrum, which was quite visible. Looking at him from the injured side his appearance was very revolting. The poor fellow had to keep the part covered with a pad of linen to prevent the saliva from flowing down the side of his face and neck.

On the 21st of July I performed the following operation. The patient was placed under the influence of chloroform, and with the able assistance of my colleague Dr. MacCallum I commenced by paring very freely the edges of the aperture. The integuments were then separated from their attachments to the superior and inferior jaw bones. The angle of the upper lip was freed, and the lip itself separated from its attachment to the incisive fossa, this gave ample room and the lip came down to its natural position without any dragging or strain on the nose. A large flap, semi-lunar in shape, was then taken from the integument situated over the body of the inferior maxilla and sub-maxillary space, this was perfectly freed and came up and fitted the aperture. The angle of the flap, somewhat V shaped, filled a similar shaped space which was left after turning the upper lip downwards. The angle of the mouth

and the angle of the flap were fixed in their places by hare-lip needles with the figure of eight suture. The edges of the rest of the wound were retained in sitù by wire sutures. The flaps were so freely separated from their bony attachments that there was no straining of the parts, which greatly conduced to the success of the operation. On the fourth day the needles were removed, the sutures were, however, allowed to remain. He had on the following day a slight attack of erysipelas, which was relieved by the usual means. From this time all progressed favorably. The sutures were not removed until firm union had taken place. The patient left the hospital on the 8th August, eighteen days after the operation. The accompanying engravings are from photographs by Notman, and give a most faithful representation of the appearance of the patient both before and after the operation.

A Case of Popliteal Aneurism in a Woman cured by Digital Compression in twelve hours after failure with Carte's Compressors. By JOHN REDDY, M.D., L.R.C.G.S.I., &c. Physician to the Montreal General Hospital, &c.

Aneurism in the female is of such rare occurrence that I desire to record the following which was situated in the popliteal artery. I am indebted to Mr. Hugh U. Bain for the notes of the case to July first.

Mary Ann Foy, aged 59, was admitted into the Montreal General Hospital on April 6th, under the care of Dr. Reddy suffering from a large popliteal aneurism. Is a strong well built woman ; has been married and has had two children. On questioning her found a satisfactory family history. Her father died in his 101st year, and her mother is still living and in her 100th year ; has had six brothers and four sisters, three brothers and one sister still living. One brother died of dropsy, another of phthisis, the third one died very suddenly, cause of death could not be ascertained. One sister died of phthisis. Husband died 38 years ago. Both

children died; one dying when aged 20 of phthisis, and the other of scarlet fever.

Previous general health has always been good. Has worked hard most of the time, and for the most part as a general servant. Twelve years ago had an attack of acute rheumatism, was three weeks ill, had great pain during this attack about her heart, and had probably some heart complication. At present, however, her heart is perfectly healthy, this is the only severe illness she has ever had. Menses have always been regular.

Present illness. About five weeks ago she felt a pain in her right foot and leg. Pain increased and foot and leg swelled considerably. One day when scrubbing, was seized with what she thought was a cramp, attended with much pain; this soon disappeared and she felt quite well for a few days. These pains returned, running from the knee to the toes, and especially in the calf and side of the leg, pains present night and day, she applied pain killer, alcohol, and camphor, &c., but with no benefit. Then, three weeks ago, when one day sweeping, she felt a sensation as if something had burst or snapped in her leg, and would have fallen but for the broom in her hand; pain now was most intense. Before this, could walk, but was unable to place right heel to the ground; could not now walk at all, could not rest at night; continued to get much worse, and was admitted into the Montreal General Hospital on April 6th, when a large sacculated aneurism was discovered, filling up most of the popliteal space.

April 8th.—To-day Dr. Reddy applied two of Carte's compressors over the femoral artery, one at the apex of Scarpa's triangle, the other two inches below Poupart's ligament. By means of these, pulsation in the tumour was easily controlled, and could at will be obliterated. The leg was also carefully bandaged with flannel from the toes to the knee. For the first few hours suffered intense pain from the compressors. Pressure was made alternately with

the upper and lower tourniquets, changing them every five and ten minutes. Was given chloral grs. xx, which gave her some relief. Complained most of the lower tourniquet which, Dr. Reddy, about 7 p.m., had replaced by another one. This relieved her a great deal, and the pulsations were now more easily controlled; at 12 p. m., given Potass. Bromide a drachm.

April 10th.—Pulse weak, 88, suffered much during the night, was given two draughts of chloral, but got very little sleep, complains now of great pain in foot and calf of leg, which are much swollen, a good deal of venous congestion; feet, very cold, were wrapped up in cotton wool. Has no appetite and feels much exhausted.

April 11th.—Slept tolerably well, pulse 88, temperature $97\frac{4}{5}$; given two draughts chloral during the night. Instep and side of leg are very sore to-day, bandage reapplied and gave much relief; swelling in leg less, and tumour has a much firmer feel, especially on its outer margin; appetite fair,—given milk diet, and a pint of milk extra.

April 12th—Pulse 80; skin cool; still much pain; less pressure now required to control the pulsation, and pulsation felt now chiefly towards the centre of the tumour.—14th—Beginning to feel quite firm,and coagulation is apparently taking place. At 8 p.m. pain very severe, was given hypodermic injection of morphia, pulse now 84, temperature $99\frac{3}{5}$.

April 16th.—Pulse 120 and weak. Little change up to to-day, has suffered a good deal but has been able to get several hours sleep each night. To-day the pulsation is much stronger and little progress towards a cure seems to have been made.

April 26th.—Leg not so much swollen, pain for the last few days has been not so great, sleeps well and has good appetite. Tumour to-day seems much harder, pulsation when tourniquets are removed is however still very strong.

May 28th.—Patient has continued in much the same

state up to the present time; pulsation apparently not much lessened, although the pressure has been steadily kept up. Has at times suffered much pain, very often requiring draughts of chloral or morphia, sleeps freely, and appetite good. Pulsation has for the last few days been gradually getting less, and tumour has now quite a firm feel. To-day, for the first time, the clamps and bandage were removed, and on examination scarcely any pulsation was perceptible. The tourniquets have now been on exactly seven weeks.

June 10th.—Patient, up to this date, has made little or no improvement; the pulsation varies much, at times quite strong and again almost imperceptible; very little pain has been complained of, and can eat and sleep well; leg is still much swollen. To-day Dr. Reddy ordered reapplication of the tourniquets.

July 1st.—Up to this time, when I ceased taking notes there has been no change worth noting, there is still quite strong pulsation in the aneurism.

I would remark here that owing to the restlessness of my patient the compressors had to be laid aside on the 28th May, when it is probable that only a few days more were necessary to ensure complete consolidation of the sac. From June 10th till the day digital compression was begun, she had the compressors on but chiefly uuder her own control.

August 5th.—On examination to-day I was forcibly struck with the appearance of the aneurismal tumour, it had within a period of forty-eight hours become suddenly enlarged, much softer to the touch and the pulsation was nearly as strong as at her admission; tying the femoral artery appeared to me now to be the only safe course to adopt. The measurement of the tumour across patella was 22 inches, opposite side $14\frac{1}{2}$ inches.

August 6th.—At a consultation to-day it was decided to try digital compression for a period of 24 hours, that failing,

to tie the artery, the staff of the hospital and students attending kindly volunteering to assist. This treatment was commenced at 1 o'clock p.m. and at the end of two hours slight consolidation was manifest ; at 1 a.m. the 7th, (just 12 hours from the commencement) neither pulsation nor bruit were distinguishable. Gentle compression was, however, kept on till 1 o'clock p.m., to render the case (if it were possible) a more perfect success. Measurement of the tumour to-day, same as before. A flannel roller was applied and the leg wrapped up in cotton wool, when compression was commenced a few hours afterwards, she suffered from retention of urine, which I relieved with the catheter ; during the night she had a few doses of morphia and a hypodermic injection to allay the pain and restlessness caused by the constant pressure which hardly produced an abrasion, great care being taken to use occasionally finely powdered chalk over the part.

A gradual diminution had taken place in the tumour of a quarter inch a day, from the 8th to the 16th of August, this has been steadily but slowly going on since that time, and the measurements are now (13th November) round side across patella 14 inches ; around tumor, same place, 17¼ inches.

She is not able to walk yet, nor can she press her heel firmly to the ground ; all pain and tenderness are, however, entirely absent.

I desire to express my thanks to the hospital staff, and to the following students : Messrs. Tunstall, Burland, Davis, Ritchie, Livingston, Levi, Fenwick and Bain, and Drs. Cameron, Mines and Cline, who gave me such valuable assistance, and thus rendered the case a complete success.

877 St. Catherine st., Nov., 1874.

Can Anything be done to stop the Increase of Insanity and Imbecility? By HENRY HOWARD, M.D., Medical Superintendent of The Provincial Lunatic Asylum, St. Johns, P.Q.

The importance of the foregoing question will be at once admitted, when we see that by the last Census, there were in the Dominion of Canada 9,423 persons of unsound mind, and that in the Province of Quebec, alone, there were 3,300. All scientific men agree that the question is assuming grave importance; but the difficulty is to see what can be done. I believe the best way to arrive at a sound conclusion would be for those who have the treatment and management of the insane to honestly express the views that observation has enabled them to arrive at; and believing this I have prepared the following remarks, and, as some of my statements may be wilfully misconstrued, I beg at once to state that my only object is the advancement of science, and to do my best to arrest a disease that I consider worse than death. With this object it is necessary that I draw a distinction between the adult and the infantile population. To the first I must appeal to themselves for themselves. For the latter I must appeal to parents and teachers. I fear there would be no use in my speaking of the marriage question, for I believe men and women will continue to do as men and women have ever done, and that is marry for *love*, without any thought of what the offspring of the marriage will be. Well love, after all, is about the best guide, and certainly no one should marry without love, but I do hold that if it be at all possible, a man or woman who has had insane parents should not marry.

Insanity is a mental disease produced by some abnormal state of part or whole of the mental organization; whether the moral or intellectual faculties, or both. If body and mind are not one, yet so close is the connection between them, that one cannot suffer without the other suffering

also, therefore the immediate or exciting causes, and they are many, that produce this disordered state of the mental organization, may be either mental or physical. Observation, however, shows that no man can go mad from any amount of mental suffering, unless he has in him an insane neurosis, that is, a pre-disposition, whether hereditary or otherwise ,to go mad. It is an established fact, founded upon observation, that in all cases of insanity there is more or less devitalisation of the mental organization; and again, that all suffering, whether mental or physical, diminishes vital power, or more correctly speaking, vital force.

Scientific men have established the fact that there are no two things in nature exactly alike, not even two blades of grass. We may therefore conclude that there are no two beings in the world whose mental organizations are exactly alike; indeed it is not very difficult to come to this conclusion, seeing how very few there are who *think* alike upon any subject, and this is nothing extraordinary, when thinking is so very independent of the will. Every man knows how frequently it happens that he thinks of the very thing he does not wish to think of, and that he cannot think of that which he wishes to think of.

In this paper I do not mean to speak of insanity from physical causes, such as apoplexy, softening of the brain, head injuries, &c., &c. I will confine myself to the more general cases that have come under my observation — those that occur from mental suffering.

Is it possible for a man to know whether or not he has in him an insane neurosis; and if he has, what precaution he can take to avoid exciting causes, or to bear up against the exciting cause when it comes, independent of any act of his? I think the best rule is, for every man and woman to believe they have in themselves the insane neurosis. To live as if they had, can do them no harm. Let each and every one avoid *pride*, *covetousness*, *lust*, *anger*, *gluttony*, *envy* and *sloth or idleness*. Let all practise humility, liberality, chastity,

meekness, temperance, brotherly love and diligence. Let them do all they possibly can to preserve good bodily health and a conscience void of offence. If leading such a life does not keep a man from going mad, I do not know what will. But there are those who, even with the observance of these rules, will not stand the storm when it comes upon them. It will be said no man could lead such a perfect life without the grace of God.

To speak of the infantile population it is necessary to classify according to mental organization. Some children are born into the world of strong, healthy parents, physically strong, and of a mental organization healthy, strong and well balanced, that is, well balanced with regard to intellectual and moral faculties. These are fortunate children, that God and nature has done well for. A child of such a stamp, under ordinary training, becomes a great man, great in the true sense of the word, no matter in what position of life he may be. Whether statesman, professional man or mechanic, merchant or farmer, that man will do right, because it is right. He will grow up strong in body and mind. No amount of mental suffering will break him down. He will never find his way into a Lunatic Asylum.

Some children are born weak in body and in mental organization, but at the same time with the intellectual and moral faculties well balanced. Such a child having wise parents and teachers, who will attend properly to his physical and mental education, will have his moral and intellectual faculties well developed, as he will have his physical force; and although never equal to the other, he will nevertheless be a great man, and never likely to become deranged. But should he be neglected or badly treated in youth, God help him when a heavy trial comes on him. He won't stand very much.

Next we have the child, perhaps physically strong, with high intellectual and low moral faculties, that is, a badly balanced mental organization. If his moral education is

not well attended to in his youth, and by such education his moral faculties developed, he grows up a bad and dangerous man, and the more dangerous that he is smart and bright. Such a man is easily known by his moral crookedness and egotism. It is such men that we find sharpers, swindlers, gamblers, &c., men who worm themselves into the confidence of families, and make their homes desolate. These are men who do not know what honor means. They are *mean men*, who by detraction destroy the good name of their neighbors, men who are always wishing to make fortunes in a day, and sneer at their betters who are content to do their duty in that state of life to which it has pleased God to call them. These men are generally too clever to be caught in the meshes of the law; men who as a rule are the very curse of society. And when the storm comes on them, not having any strong moral faculties to fall back upon, in the end they break down, and become insane.

Next we have the child of high moral but low intellectual faculties. If such a child gets a fair chance, his moral faculties will stimulate his intellectual, so that he may rank in time, with ordinary men. But if his intellectual faculties are not well attended to in his youth, he will grow up a religious fanatic, a "one-idea man." He will try to cram his opinions down everyone's throat. A man that will be willing to be persecuted and made a martyr of; a regular pest to society, one of those men that O'Connell called a religious fool; he generally ends in becoming a religious maniac, and a pest to whatever Lunatic Asylum to which he happens to be admitted.

The next in classification are Imbeciles. These are children of very low mental organization, differing, however, in degree. There are some that can, by great perseverance on the part of parents and teachers, be brought to learn much, yet under no circumstances will they ever be of a strong mind, and very little trouble at any time will drive

them into a Lunatic Asylum. It is from this class, when neglected in youth and brought up in a state of moral depravity, that our most vile criminals come, and it is an extraordinary fact that they rarely ever go mad as long as they can carry on their career of crime. It is when a check is put upon their criminal acts, and they are obliged to live according to prison rule, that reason forsakes them. It would appear as if crime itself were the very safety-valve that saved them from becoming lunatics. It must be remembered what the peculiar class of persons I am speaking of is. I am speaking of the Imbecile, neglected in youth; one that has never learned anything but evil. As a rule these creatures are the children of debauched and drunken parents. Some imbeciles are so very low in their mental organizations as to approach the idiot, They are not in reality idiots, but they are not responsible beings, and should never be at large, but under proper surveillance. They are a most dangerous class of beings, as they will gratify their animal passions without any compunction. It is such creatures that commit the most revolting rapes and most horrible murders.

The next order of classification is the congenital idiot. He is generally, but not always, the offspring of imbecile parents. He is a creature so low in his mental organization that it is sometimes hardly possible to teach him how to put food into his mouth, he will more readily lick it off the ground like a dog than make any use of his hands. Sometimes it would appear as if they appreciated kindness but they are always vicious and treacherous. They are in appearance more like the monkey than the man. Fortunately procreation stops with the idiot, for they are both *sterile* and *impotent*, female and male. Let it be borne in mind that Lunatics can descend through all the different degrees of imbecility, till they arrive at the state of idiotcy, the only difference between them and the congenital idiot being that one has lost what the other never had.

From the foregoing facts I consider that it is self evident that there can be no *general* system of education, either physical or mental, suitable for all children; consequently I hold that much of the increase of insanity and imbecility is due to the present system of education, I would say the present high-pressure, forcing system.

Out of four hundred patients admitted into the St. Johns Asylum, over two hundred were at the time of admission imbeciles, so of these I take no account; of the two hundred lunatics over one hundred and fifty had more or less education, that is, could at least read and write, and many of them were what might be called well educated. Two were first-class educated schoolmasters, both got well but did not return to teaching. A third was educated for a schoolmaster, he got well and went to farming. Then I had four female teachers; two got well, one returned to teaching and is now in an Asylum in Upper Canada, the other is working in her father's house, who is a farmer; the other two are still in the Asylum, with but little chance of recovery. Then I have had a large number of clerks, half educated; some got well, some did not, and from the history of all these cases I have no doubt but that the exciting cause of insanity was overworking the mental organization, trying to force the mind into obedience to the will; and I believe it is this forcing of the mind at schools that is destroying the mental organization of so many, and is one of the great causes of insanity. It must be remembered that the mind is always acting quite as independently of the will as the liver, the heart and lungs, and the stomach. The power the will has over the mind is *limited*. In some organizations the will can direct the mind in a very great degree, but not altogether; in others the will can direct the mind in a very small degree. One boy can so direct his mind as to commit to memory a page of history in a few minutes; such was the power of the late lamented D'Arcy McGee. Another boy by no amount

of his will can ever commit much to memory, and the greater his effort the more he tires out his brain, and the less he knows. I would ask how can there be a general system of education for such opposite mental organisations? Every man in the world knows how difficult it is sometimes to call to mind the name of a person or place by an act of his will. Every man also knows how difficult it is to keep his mind fixed on any one subject for five or ten minutes. Certainly by mechanical means we can keep the mind fixed, that is, by employing our hands at any mechanical work; and perhaps it is because of this that we find so very few mechanics become insane, if they do it is because they break some natural laws, become drunkards, &c., and no man can break any of the natural or moral laws, and not suffer in consequence. There is no difficulty in knowing when a man or a boy has muscular fatigue from manual labor or over exercise; but it is not always easy to know when the mental organization is fatigued. I think, however, that it can be known; for example, when a man reads a couple of hundred pages of any book and finds that he remembers the first pages better than the last twenty or thirty, he may be very sure it is time for him to stop; he will retain nothing of what he is reading, and is only injuring his brain. So with a young boy at school, he repeats his lesson to his teacher tolerably well, the teacher is not satisfied, the boy is sent back to study his lesson again; the second time he repeats it worse than the first, although, poor boy, he has done his best, but his brain was tired, and very probably he is punished for what was no fault of his. I think the foregoing clearly establishes two facts; firstly, that where children are of such different physical and mental organizations, there can be no general system of either physical or mental education applicable to all, in fact, that what is good and wholesome to one is death to the other; secondly, as in all schools there is a general system of education, the only classification becomes

the ages of the scholars, and it must of necessity follow that our present system of education is injurious to the physical and mental growth of the scholars, and consequently that we have so many of our youth of both sexes growing up weak in body and weak in mind, and that there is such a terrible increase of insanity. There is no doubt that teachers are much to blame for this state of things ; but then parents are much more blamable. In infantile life mothers as a rule leave their children too much to the care of servants, because they are either too lazy or too *fine* to take care of them themselves, in fact, because it is not fashionable. The last thing a child should feel at night is its mother's kiss, and it should go to sleep in looking at the mother's loving eyes ; but instead of this the child is left to the tender mercy of a servant, who frightens it to sleep that she may have a chat with John, while the fashionable mother is gone off to hear that dear man Mr. Balderdash lecturing upon Physiology of Man, or some other equally interesting ology. Then, as children grow up, they are packed off to boarding-schools—*firstly*, to get them out of the way ; *secondly*, because it is fashionable ; *thirdly*, because the pride and ignorance of the parents are so great, that they fancy because they have money their children must have brains, and must be educated to the highest standard. So children are sacrificed to the laziness, pride and ignorance of the parents.

Another fault of parents from which the children suffer is that they do not know how to choose the proper teacher and when they have one they don't know how to treat him. They begrudge to pay an educated gentleman as well as they would pay their servant, and treat him with half the respect, and then, poor souls, they expect the teacher to take an interest in their children, and they expect their children to love and respect the teacher, and in time they find themselves disappointed in both their expectations. Let parents pay a teacher well that he may live as becomes

a gentleman, and let them in every other respect treat the teacher as their equal, then they will have some claim upon him, and if he is a true teacher he will do justice to their children, and the children will not only love and obey him while under his care, but will love and revere him during their lives ; he will always be to them "THE MASTER."

It is a melancholy fact, from which great evil has resulted, that men and women fancy when they can do nothing else they can teach ; now there never was a greater mistake ; no person, no matter how well educated he may be, can teach, unless he is actually born a teacher ; no act of the will can make a man a teacher, any more than an act of the will can make a man a poet. It is not necessary that all teachers should have the same degree of education, but all teachers should have the knack, should be capable of imparting the knowledge they possess, in part or whole, to those they attempt to teach, depending of course upon the soil they have to sow the seed in, whether it be of a high or low mental organization. A teacher should be naturally of a cheerful, mild, amiable disposition, loving and lovable, one that would rule by love and not by fear. I have no faith in obedience to God or man that is given through fear ; cheerful, loving obedience is what can be depended upon, and this is impossible with the present system of education. The true teacher will make it his study to know his scholars thoroughly, to know their mental and physical capacity and treat their mental and physical powers accordingly. He will be able to say to parents whether their son is or is not fit for the highest order of education, and thereby prevent many poor boys from losing unnecessary time trying to learn what they never can learn, ending in disappointment and being disgusted with themselves and the world.

I have thus endeavored to show that the present system of education is bad, is radically wrong, and is the cause of one of the great causes of the spread of insanity. Some one more capable than I am must show how that system

can be improved. I will merely say there is too much study on the part of the scholars, and too little teaching on the part of the teachers. It is all books, books, morning, noon and night; no end of books. The books that a boy is expected to go through in eight or ten years, he could not go through in thirty. Let all this book learning be stopped; let there be more black-board and chalk, and lecturing from teachers. I believe a child should be taught its alphabet on the black-board, to spell on the black-board, arithmetic on the black-board, geography, history and mathematics all on the black-board, globes and maps, and from the mouth of the teacher; and instead of sticking every day for a certain time in badly ventilated school rooms, let the master frequently take his boys for a day out into the country, and there in conversation and amusement and good healthy exercise teach his pupils from Nature, lecture to them on the mountains, vales, rivers, trees and rocks. Thus will youths be truly educated; thus will they grow up strong in body and strong in mind.

HOSPITAL REPORTS.

Case of Excision of the Hip; Operation. By Dr. D. C. MacCallum. Reported by Mr. W. H. Burland.

James Anderson, aged 6, was admitted into the General Hospital, under the care of Dr. Ross, on the 22nd of May, 1874, in a state of high fever, and having a large abscess on anterior aspect of left thigh. He was weak, much emaciated and restless, and complained of severe pain. For the previous history of the case I am indebted to Dr. Ross, who saw the boy for the first time in August, 1872, when he was suffering from pain in the left knee, which was painted with iodine. There was slight flattening of the corresponding hip, and he limped in walking; his health had been failing for the last month, during which time the lameness was noticed. Latterly had been restless at night,

and would occasionally scream in his sleep. Dr. Ross diagnosed Hip-joint disease, and soon after put the limb up with a long splint, extension being made by a weight. This was kept up for three months, after which the long splint was replaced by a gutta percha splint and starch bandage. He was now allowed up on crutches, but sooner than was advised, as the parents would not leave him in bed any longer. The joint was at this time free from pain, but stiff. Through bad management and want of care the pain soon returned as bad as ever, and he screamed a great deal at night. The long splint with weights was replaced and left on for nearly three months longer. After this the case was lost sight of, and not again seen till his admission into hospital. The abscess was opened shortly after admission. In a few days a rather severe attack of erysipelas set in, which extended down the thigh and up the side for some distance. This caused the doctor to postpone operative interference at this time. Accordingly extension was kept up and the child was put upon nutritious diet to improve his general condition. He was treated in this way, getting also half a pint of porter daily, till the latter end of July. All this time the openings made to evacuate the abscess remained as sinuses communicating with the diseased bone. Dr. MacCallum, under whose care the case had been since the beginning of July, now determined to excise the joint. The boy's general condition by this time had improved considerably. He was fatter and in better spirits; suffering no pain unless the limb was moved; not restless. There was no cough, nor lung complication; and although there were signs of a hectic, febrile condition, from the prolonged suppuration as shown by his frequent pulse (120), high temperature (101.4°), and the readiness with which he perspired, he was now in as favorable a condition for operation as could be expected.

July 30th.—To-day the operation was performed. The patient having been put under the influence of chloroform,

Dr. MacCallum made a straight incision of about 3½ to 4 inches in length, over the greater trochanter. Cutting to the bone and freeing all attachments, the head of the femur was dislocated by rotation and sawn off. The head was greatly eroded. The extreme end of the bone formed a large fragment, which, with several smaller ones, was removed. It was not found necessary to remove any of the acetabular portion of the joint. The bleeding was inconsiderable. The wound was washed out with carbolic lotion and filled with lint saturated with carbolic oil (1 to 20). After the removal of the patient to his bed, extension was made by a weight of 3 lbs., and the leg kept in position by sand bags. His temperature on the night before the operation was 101.4°, and on the morning of the operation 100°. On the night after the operation it was 103.2°. Next morning it had fallen to 100.4°, rising again on that night to 103°. On the following morning it was 99.4°, and for the next two or three weeks it ranged between this or 99° about and 100.4°. His pulse varied in same ratio with the temperature. On the evening that temperature was 103.4° pulse was 148, falling next morning to 128, and after this it ranged between 100 and 120 for two or three weeks.

By the 4th or 5th of August the wound was granulating nicely and discharging freely. It was dressed daily with fresh lint and carbolic oil. Boy's appetite is good; he is getting chicken broth and half a pint of porter daily.

August 10th.—A slight diarrhœa set in for which he got Pulv. Cret. Co. c. opio. gr. x, every 4 hours.

August 13th–14th.—The wound is filling up from the bottom and sides rapidly. Patient is able to move himself in bed with less pain. Has slept better the last two nights than previously. A bedsore is forming over the sacrum. To relieve the pressure on this spot a pad was made with a hole in the centre. The sore was painted twice a day with a solution of Hydrarg. Bichlor gr. v to the oz.

2 oz. brandy was substituted for the porter which he had been taking.

Sept. 9th.—Notwithstanding the diarrhœa which obstinately persists, the boy is getting on very well. His appetite is good, and he is fatter than he was. The wound has been progressing very slowly lately. Red wash is now substituted for the carbolic lotion, and the edges are drawn together by adhesive plaister. He is now taking cod-liver oil. The old sinuses have not closed.

About the middle of October the extension was given up, and at the end of the month the boy was allowed out of bed. He left the hospital on the 8th of November, at which time his condition was as follows :

The actual shortening of the limb by measurement is but one inch, though apparently it is much greater, from the position in which the leg is kept. The knee is flexed, and the pelvis drawn up on that side. The toes also are inverted. When the boy is placed flat on his back, there is noticed a bulging of the affected hip. The circumference here is 11¼ inches, while at the same part of the opposite leg, it is 10 inches. The adductor muscles are tense, and there is considerable induration of the parts around the wound. One of the old sinuses is still discharging, and one has appeared at the bottom of the incision which had been made at the operation, which had but lately healed up entirely. The rest of the incision is cicatrized. There is no pain complained of, and with slight support the boy can walk, the toes only of the affected leg reaching the ground. His general health is excellent. He eats and sleeps well and is in good spirits.

Case of Lithotomy in a Child, by Dr. D. C. MacCallum, reported by Mr. J. Dorland.

J. F., a French child, 4 years old, was admitted into hospital on the 16th of September, 1874. Was born of healthy parents, but eighteen months ago began to suffer from occasional and sudden stoppage of urine, to be restless and fretful, and to show a constant desire to

handle the end of his penis. These symptoms increased steadily, till the mother brought the child to the hospital to consult the medical men there. The restlessness and suffering of the child had impaired its appetite and general health somewhat latterly. Dr. MacCallum examined the child with a sound and detected the stone, which, from the difficulty of finding it, the very slight click, and the sensation communicated to the instrument, he concluded was very small. It is, perhaps, worthy of notice that a cousin of this child, of about the same age, was operated on for stone by Dr. Ross three or four months ago.

September 18th.—*Preparatory to the Operation.*—To-day an injection was given to the child. Its bowels had not moved for 36 hours. After the introduction of a curved, groove staff, and the detection of the stone to the satisfaction of all present, the incision was begun about half way between the anus and scrotum, a little to the left of the median line, and extended downwards and outwards with the usual precautions. The staff was readily found and incision extended into the bladder. Now the operator experienced some slight difficulty in getting hold of the stone, the bladder was so easily pushed up and the stone was so small. At last, however, he got hold of it between a scoop and his index finger and brought it out. The stone was of uric acid, having the appearance very much of a coffee bean in size, shape and color, having even the groove along the centre. There was a good deal of oozing, which was checked by application of ice in the wound. The child was now put to bed and a large sponge applied under his buttocks to absorb the urine as it dribbled away through the wound. Barley water and one pint of milk were ordered as diet.

Towards noon next day he had a chill, after which his temperature rose to 100° and pulse to 140. By the next day pulse and temperature fell and the child was very comfortable, sleeping and eating well, but, naturally, irritable.

The oozing had returned occasionally from the wound and rather freely, but was always stopped by application of ice. On third day was taking chicken broth and beef tea. The urine gradually began to come away by the urethra and less by the wound until the 26th, that is, seven days after the operation, urine came through the wound. The wound is granulating nicely, and on the 30th, as all the urine was passing by the urethra and everything progressing favorably, the child was taken home.

Case of Malignant Disease near the Cardiac Orifice of the Stomach—Cancerous Enlargement of the Head of the Pancreas—Perforation—Death—Autopsy. Reported by Mr. S. J. TUNSTALL.

M. M., aged 25 years, was admitted under the care of Dr. Godfrey, into the Montreal General Hospital, 11th Sept. 1874, complaining of obstinate vomiting and cramps.

She had been employed for a number of years in one family, as a tablemaid, and has always maintained the reputation of being an active, faithful and sober person. Her family history is unexceptionable, while quite young, she seemed to enjoy perfect health, although she has always been afflicted with occasional attacks of Vertigo. Some five years ago, she began to be troubled with severe pains in the back and side which have continued more or less ever since. The pain is described as bearing down and dragging in its character. Two years ago, she had a sharp attack of what was called muscular Rheumatism ; while more serious symptoms set in about one year ago. Vomiting then was for the first time noticed, and profuse salivation with occasional attacks of pyrosis supervened—Dyspepsia was soon added to her troubles,—so severe at times that she was unable to make the slightest exertion. Up to this time she was a strong, healthy, well developed young woman ; but emaciation has ever since gone on slowly but surely, till now, her face is drawn and pinched, she is sallow, weak and

reduced almost to a skeleton. The heart sounds are quite normal. A distinct bruit can be heard at the epigastrium. Upon deep and firm pressure a round solid tumour in the epigastric region can be made out, which gives to the fingers the sensation of pulsation. She complains of severe pains extending from the lower lumbar to the sixth dorsal vertebra, and pains somewhat less severe in the cervical region. These pains are increased by exposure to draughts of air. Obstinate vomiting has persisted for some days, which however does not seem to cause much nausea or distress. She complains of dyspepsia and cramps in her stomach—malignant disease of the cardiac orifice of the stomach was diagnosed. Counter irritation was applied to the Epigastrium by means of a blister: the following pill was ordered to be taken three times a day:

Ext. Bellad.
Argent. Nit.
Pulv. opii aa gr ¼

She was put on milk diet; lime water being used with the milk.

Under this treatment, the irritability of the stomach seemed to disappear, gradually moderate quantities of liquid food were kept down and after a time a piece of roast chicken was relished and retained. On the 13th of October the pills, which had been persevered with steadily, were discontinued, and a pill containing half a grain of Valerianate of zinc was ordered instead.

On the 17th diarrhœa set in, accompanied by severe pains and cramps in the stomach and bowels. This diarrhœa with cramps continued with more or less severity till she died. The evacuations were light, varying from a light clay to a dark chocolate color; they were thin, and at times very slimy, containing ropy curdy masses and flocculi; they were always most offensive. Various remedies were tried, but nothing seemed to check the diarrhœa, remove the pain, or change the unhealthy nature of the stools.

Castor Oil and laudanum, chlorodyne, a pill of opium, a pill of sulphate of copper and opium ; injection of starch and laudanum, a mixture of port-wine and decoction of logwood were faithfully and repeatedly tried, but none of them afforded permanent relief.

On the 9th of November, she sat up for a while in the morning, and seemed to be more free from pain and in better spirits than usual. At 12. 30. she complained suddenly of a sharp severe pain in the stomach, and fainted : restoratives were at once administered ; she recovered in a few minutes, and calling for the bed pan she passed a large quantity of blood. Her face became quite blanched. her breathing rapid, her pulse irregular ; she complained bitterly of excruciating pain about the Epigastrium, and at 1. p.m. she died in great agony, with all the symptoms of collapse.

Autopsy—Twenty two hours after death.

Rigor Mortis—Well marked.

The body was much emaciated, and the muscles greatly wasted.

Abdomen—On opening the abdomen, a large quantity of blood, along with portions of the contents of the stomach, was found in the peritoneal cavity.

Stomach—A large cancerous mass existed close to the cardiac orifice of the stomach ; perforation had taken place in this mass, leaving an aperture with ragged, thickened edges about three fourths of an inch in diameter. The cardiac orifice was not constricted to any serious extent by this mass as the little finger could be easily passed through it. The pyloric orifice was quite healthy.

The stomach itself was distended with a clot of blood and with some liquid food she had taken a short time before death.

Pancreas—The head of the Pancreas was much enlarged and the seat of extensive malignant disease. Upon cutting into it, a large cavity was found filled with old fibrinous masses and a recent clot of blood. This cavity was largest

in the head but it extended also throughout about three fourths of the body of the Pancreas. Its walls were ragged thickened and irregular. The duct was quite pervious throughout. The coats of the arteries were quite thickened and atheromatous, and all the vessels were much enlarged. A bristle was passed through a large branch of the Pancreatico—Duodenalis, into this large cavity in the head of the Pancreas proving that the coats of this vessel had been eaten through; this, in all probability, caused the hemorrhage which proved so rapidly fatal.

Duodenum—A clot of blood was found between the coats, in the concavity of the descending portion as it curves round the head of the Pancreas—otherwise quite healthy. The other viscera were quite normal.

Reviews and Notices of Books.

Essays on Conservative Medicine and Kindred Topics. By Austin Flint, M. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine, in Bellevue Hospital Medical College, New York: Philadelphia. Henry C., Lea, 8 vo. pp 214. 1874.

We have perused Dr. Flint's modest little volume with very considerable interest—an interest principally engendered by the fact that the topics discussed are really the most important in the practical medicine of the present day. Nothing probably assists us more in understanding and appreciating the bent and genius of the medical mind of this living generation than such reflective essays as these. The scepticism and doubt produced by our finding on retrospection how completely medical practice has been revolutionized, how few teachings, and methods and theories have been able to withstand the test of even a comparatively short space of time, is apt to give rise to an uncomfortable sensation of uneasiness concerning the soundness of the views of

the present day. Such however should not be the case. The firm foundations being laid for rational and scientific medicine cannot be shaken, and although we know that our Art must always be progressive, yet we should be glad to know so much and be hopeful for the future.

The term conservative has for some years back been very commonly used in Surgical parlance, but we remember to have heard it but very seldom in medical—and whilst there is amongst Surgeons a clear and distinct and ever-present idea that what they do must be done *conservatively*, we are not sure that with all medical practitioners this idea is at all so clearly presented to their minds, and yet there can be no doubt that the one is just as important as the other. There is a great deal in the constant and habitual use of a term of this kind. The mere employment of the word tends to direct the thoughts towards the principle underlying any line of action. Every surgeon of the present day prides himself upon the *conservatism* of his practice, and so also, as indeed all the great triumphs of the medical art have been accomplished by conservatism, should the physician take delight in showing how his practice has conformed to the doctrine of the conservation of the vital forces. In olden times the surgeon would boast of the number of his amputations and the skill with which they were performed, now he tells of the number of times in which, by skill and management, he has preserved limbs otherwise doomed. So again used the physician to parade the boldness with which he would attack diseases by bleeding and depletion and nauseant prostration, now on the other hand he shows how lives are saved by holding his hand from these violent measures and by hoarding the vital energies and fluids, trusting then to them to oppose the forces of disease, in fact by Conservatism.

The conservative physician is thus defined. "He shrinks from employing potential remedies whenever there are good grounds for believing that diseases will pursue a favorable

course without active interference. He resorts to therapeutical measures which must be hurtful if not useful, only when they are clearly indicated. He appreciates injurious medication and hence does not run a risk of shortening life by adding dangers of treatment to those of disease." It is then briefly shown how, with the progress of medicine during the last twenty-five years, these conservative principles have been generally developed until now they have become of paramount importance,

The first Essay is entitled Conservative Medicine. Besides this, there are seven others as follows, on Conservative Medicine as applied to Therapeutics. Conservative Medicine as applied to Hygiene—Medicine in the Past, the Present, and the Future—Alimentation in Disease—Tolerance of Disease—The agency of the mind in Etiology, Prophylaxis, and Therapeutics. Divine design as exemplified in the Natural History of Diseases. All of which contain much that is interesting presented in an easy and unstrained style which suits the subject.

Although these Essays have separately appeared before in some of the American periodicals, we dare say many of our readers have not seen them, and to those who have not we recommend them as well worthy of perusal.

Therapeutics and Materia Medica. A systematic treatise of the action and uses of Medicinal agents, including their description and history. By Alfred Stille, M.D. Professor of the Theory and Practice of Medicine and of the Clinical Medicine in the University of Pennsylvania; Physician to 5th Joseph's Hospital: &c., &c. Fourth edition. Thoroughly revised and enlarged. In two volumes. Philadelphia, Henry C. Lea, 1874, pp 1644.

The profession generally is deeply indebted to American authors for excellent works on pharmacology. No better ones, for what they profess, have been issued anywhere than those of Beck, Harrison, Mitchell, Tully and Wood. With them we have much pleasure in associating the production

of Stillé, above named, for comparing it with them, whether as a well digested compilation or as the record of the writer's own experience and views, it is entitled on the whole to at least equal favor and in some particulars to preference.

The more familiar title "Materia Medica and Therapeutics,"— is transposed in the present treatise to "Therapeutics and Materia Medica." This inversion of the old order accords with the design of the author, which was to devote by far the largest part to Therapeutics, or to the effects and employment of medicines, and the smallest to Materia Medica proper, or the consideration of medicines in their physical, chemical and pharmaceutical relations. In his preface he expressly tells the reader he has purposely devoted less of his space to the strictly scientific portion of the subject, and has sought to illustrate more copiously than is usual in similar works its practical bearings. To the student, therefore, who wants all parts equably treated, it is not so well suited as to the physician who requires a reliable guide that he can consult in matters of actual business.

The latter will find that upon the uses of drugs these volumes are particularly full of information. If he desire to know the authority on which a remedy rests, or what it can do, or the account to which it may be turned, he has but to inquire within,and to facilitate reference— there is not only an index of medicines, but also an index of diseases with the remedies adapted for them, named under each head.

Nor has Dr. S. contented himself with giving merely the modern application of medicines, but, as a laborious antiquarian he has drawn largely upon olden times. Under "Medcal history," he has gathered in what Hippocrates, Dioscorides, Galen, Rhazes, and other fathers of physic, did with remedies that are still prescribed, and advancing onward from them, notes the estimation in which they were held

by others, among the Italian, French, German and English, in succeeding ages.

In treating his subjects, we could have wished our author had been less conservative. We will explain what we mean. Writers on Therapeutics who have preceded him in describing the classes of medicines *e. g.* Astringents, Refringents, &c., delight in interlarding their remarks with details which are either strictly physiological or belong to some other branch of science rather than the one they have undertaken to elucidate. They go out of their way to say something about the minute structure of an organ, or its functions, or the changes its secretions assume in various morbid states, or the effects of these upon the system generally. Too often, again, they plethorize their accounts with what is effete, with what is curious indeed as theory, but which has long since ceased to harmonize with more modern developments. From these faults Dr. S. is by no means exempt. He has run too much in the old groove. We have felt in reading him, it would have been better had he avoided repeating these mistakes and confined himself more to the question. The description of a class of remedies should be confined to what would be a gradual unfolding or explanation of the definition, so as to exhibit something of the demonstration of a problem. To introduce matter that is irrelevant, where much else might have been brought forward to directly elucidate, is to burden a subject unnecessarily and make it jejune.

Let us illustrate these remarks by Dr. S.'s chapter on Emmenagogues. It may be laid down as a veritable truism, that, if these agents (as they are usually defined) be medicines which can restore the menses when absent from certain morbid causes, they can only do so by reproducing menstruation as it occurs naturally or without their aid. They must accordingly act upon the same organs as those upon which the influences act that bring about the return of the catamenia in health. These organs are primarily

the ovaries. Emmenagogues therefore must excite these same structures, the ovaries. And they must also induce in these parts the same train of occurrences as are known to ensue during normal menstruation or where they have not been previously used. In turning to a book on Therapeutics it would not be too much to expect to find the state of that science in accord with the light that other departments cast upon its co-related subjects. In the instance adduced it would not be too much to look for an accord in the explanation of the *modus operandi* of Emmenagogues with the present knowledge of obstetric physiology concerning menstruation. And such expectation seems the more justifiable in examining a work so recent and so comprehensive as Dr. S.'s. But what is the fact? Like his predecessors, who have written books before him and treated on the same subjects, his explanation of the action of Emmenagogues leaves out of consideration altogether the all-important ovaries. It is like the play of Hamlet with the character of Hamlet left out. Instead of referring to them, we are carried back to the dark days when menstruation was laid solely to the account of the uterus. It and it alone is mentioned as the organ which is the special seat on which these agents exert their power. They are in the words of Dr. S. "all medicines which are employed to influence the uterus."

As in other cases, this error, besides leaving the un-informed reader in ignorance, leads to false impressions. For example: Admitted that the menses are secreted by or extravasated from the inside of the uterus, it might be supposed that this was a proof of the influence of the emmenagogue on that very part. As a fact, however, it is not so. The medicine has no such influence on the uterus. The influence that causes the latter to secrete is from an ovum descending through its cavity. And the only influence of the remedy is upon the graäfian vesicle from which that ovum has escaped. Any effect upon the uterus is, therefore,

a secondary, and subordinate, and dependent one. So essential is the primary or ovarian influence that without it no influence limited to the uterus would be of the least avail.

And this brings us to another mistake which such a definition of emmenagogues, as Dr. S.'s suggests. From it, one might infer that any remedy that can influence the uterus would be an emmenagogue. Just the opposite, however, is the case. There is one agent, ergot, in particular, which can very powerfully influence this organ, but it is not a restorer of suppressed menses in the same degree or certainty that it is an exciter of uterine contractions. Indeed, it is very doubtful if it has any emmenagogue virtue at all It is true a few have reported success after its use in Amenorrhœa. But we are sure, most practitioners do not prescribe it in that disorder, and, those who have tried it have not had from it the same positive results that have attended its administration in cases of powerless labor. The appearance of the catamenia after its use an odd time or so proves nothing at all. Since the occurrence may not have been due to it in the least,—but may have been the effect of concurrent circumstances re-establishing the patient's health, or removing some hinderance to the menstrual function. It is well known that no other secretion is more likely to be influenced by the state of the constitution than the catamenial. A medicine, moreover, like Ergot, that acts upon muscular fibre could not be expected to act locally upon the ovaries which are destitute of such texture.

We will now illustrate from Dr. S.'s, further description of Emmenagogues,—what we have above said about the irrelevant treatment of Therapeutical subjects. After the first few lines,—he proceeds to enlarge upon the importance of the function of menstruation,—then upon the relation of the disorders that follow its cessation,—next upon the groups or categories into which cases of menstrual

derangement, may be divided, with more or less account of them, What are these ? if they be not beside the strict question of the action of Emmenagogues. Yet, they take more than half the space allotted to the discussion of the latter in the introductory chapter.

And what, in this special instance, is worse still, is that the want of precision as to what these remedies are is still more plain in the little left. Determined to stick to his flag that they are "all medicines, which are employed to influence the uterus,"—he makes no separation, nor mention by the name, of Ecbolic or Abortive agents,—but runs them all as one with the rest. Nay, he even includes with them, Ether and Chloroform as relaxants of the Os uteri. Nor is this all, even such beggarly things as "*milfoil*," "*tansy*," "*dittany*," "*mugwort*," "*horehound*" *and* "*chamomile*" are laid under contribution, and taken in as members of the class. And yet more ; without any division of Emmenagogues into Absolute and Relative, the umbrageous "all" is made so accommodating as to include with the foregoing "sedative emetics," "saline cathartics," "revulsives," and "most of the aromatic plants." Finally, multifarious though these be, there are still more to come which, as stated by the author, are general bleeding, mercury, iron, baths, cupping, leeches, electricity, air, exercise, food, "and finally marriage." Before such a *pot pourri* of emmenagogues, surely, the offending ovaries, or as he would say, "the uterus," must give up the strike and go back to work !

These are instances of the blemishes in Dr. S's work which, as we before implied, spring from too great conservatism, from his having been too diligent a collector of simples, and too successful a reflector of statements made by others before him. Had he re-cast the whole matter and adhered more closely to his subject,—had he used necessary prunings, and indulged more in a philosophy *au courant* with the advance of science generally, he would have been

more original and have done better work in the vast fields of Therapeutics. If, however, we regard his treatise as a compilation solely, we must admit that it is a lasting monument to his extensive learning, deep research, indomitable perseverance, and laborious painstaking.

The present edition is a careful revisal of the former work. In it has been added about 250 pages of new matter. Several new articles have been introduced, and the chapter on electricity almost entirely re-written.

We think it would have been made still more useful had the preparations of the British Pharmacopœia been inserted, and distinguished from those of the United States Ph. We would respectfully suggest that the omission be supplied in the next edition. To Canadian Physicians who follow the first, this addition would do away with the necessity for turning to another book for information upon these subjects.

Periscopic Department.

THERAPEUTICS.

On Various Therapeutic Uses of Calabar Bean; Especially in Tic. By W. Munro, M.D., C.M., Cupar-Fife, late District Medical Officer, St. Kitts, West Indies.

Having in 1871 pointed out the probability of Calabar bean being useful in cholera,* from the power which Dr. Fraser has shown it to possess of expanding the peripheral blood-vessels, I have since then thought it might be useful in many other diseases, in which, from one cause or another, these blood-vessels are contracted, but was prevented by various circumstances from applying my ideas in practice

* *Edinburgh Medical Journal*, October.—I may here say that, from what has since become known of the doses which may be given, I would be inclined to begin in cholera with one-third instead of one-eighth of a grain of the extract, as is mentioned in my paper ought to be injected

until October last. Calabar bean had, up to that time, so far as I am aware, only been used in tetanus, although it has recently been used in general paralysis and acute mania. (British Medical Journal, January 10th and 17th).

Tic Douloureux.—Believing that in *tic* the blood-vessels of the part affected are in a state of contraction, I have made use of the bean in several cases with exceedingly satisfactory results. Very short notes of the cases are appended. I may say here that Cupar is a rather low-lying place, in which tic of an intermittent form which disappears on the person leaving the town, even for a time, is not uncommon. Fever and ague in those who have had it abroad is apt to return. There is, in fact, a slight malarious influence evidently present in the atmosphere.

Case I. October 16th, Mrs. D. had tic on the left side of the head. I applied one of Streatfeild's ophthalmic squares to the eye. In about five minutes, she expressed herself as decidedly relieved. This was not a very severe case, which may account for only one square being sufficient.

Case II. November 6th, Mrs. X. had severe tic, with intense photophobia, brought on by reflex irritation after several days' severe uterine pain, which had now passed away. I used one square, in the right eye. In ten minutes. she was able to open her eyes and converse cheerfully. In half an hour, I used another, relieving the pain entirely, only leaving a "slightly bruised feeling," which was almost entirely removed by another half. The pain did not return, and no more Calabar bean was required. The pupil was never contracted.

Case III. Miss J. K. had severe intermittent tic, with anæmia. At present, it was almost remittent. She had very severe pain all over the left side of the head, and some on the right side. The pain was intense over the left eyebrow. The pupils were much dilated. She was first seen on December 10th, at 11.15 A.M., between which time and 4.30 P.M., three squares and a half were used (from half to two at a time) in

each eye. At 6.45 P.M., she had no pain. At 8.30 P.M., I found she had had a very slight short pain about 7 P.M. Both pupils were still dilated. December 11th, pain returned at 3 A.M., and continued almost constantly until 1.30 P.M., when I used two drops of a solution of extract of Calibar bean* (1 in 40) in the right eye (that being the side most affected). In fifteen minutes, the pain was much relieved. At 3 P.M., I found her asleep, but on awakening she felt slight pain on both sides of the head. I used two drops in the left eye and one in the right. In ten minutes, the pain was quite gone. At 9 P.M., she was sitting up, and felt quite well. From this time until December 26th, when I ceased attending, she could at any time stop the pain at once with the drops, which I found it convenient, however, to make of the strength of 1 in 32 afterwards. I treated her at the same time (from the 13th) with quinine and carbonate of iron, with decided benefit. I used the thermometer frequently in the armpit in this case, but observed no decided change of temperature attributable to the use of Calabar bean.

CASE IV. Miss T. had long standing tic, yielding to no treatment. It was only relieved by leaving Cupar for a time, and came back on her return. The pupils were generally much dilated, especially during an attack. I thought of using croton-chloral-hydrate in this case, but preferred the Calabar bean as being only local in action, as I think local remedies are always to be preferred for local diseases, when there is a choice. December 31st. When called, I found her suffering from intense pain over the eyebrows, mostly on the left side. I used two drops of a solution of 1 in 30 (partly lost) in the left eye, and one in the right. In about ten minutes, she said the pain was not quite so severe. I then used one drop more in each eye,

* I had to abandon the use of the squares, as I found that three or four were required at one time: but, could I obtain squares containing physostigmatin, I would much prefer them, the drops being a clumsy substitute at best, and not allowing of anything like the precision attainable by the use of squares, as well as being more troublesome to the patient. In experiments on the healthy human eye, I have found it necessary to use five and even six squares to produce contraction of the pupil and temporary congestion of the surrounding parts.

with the effect of relieving still more, according to the patient's statement, the localised pain ; but, on my return half an hour or so afterwards, I found her suffering from severe pain in the left eye, the pupils being contracted. The patient, being very reticent, had not mentioned to me that tic could be set up in the eye by even a drop of water getting into it, and even now said nothing to let me understand that the pain was that of tic (which unfortunately she was too well able to distinguish from other pains). Seeing the rather strong contraction of the pupils, I used at once one-third of an atropine square to counteract the effect of the Calebar bean, thinking the pain was caused by the contraction. The atropine acted only too well, evidently being assisted in its action by the tic, and the pain *immediately became more severe.* The dimness of vision common after the use of atropine remained in this case for three or four days, and frightened her, she being rather hysterical, so that she refused to submit to further treatment.

Thus, in this case, the only one which had not been perfectly satisfactory in its results, although the patient was not really benefitted by the use of the Calabar bean, the pain was, in the first place, according to her own statement, removed from its primary seat ; and, even although set up in the eye by the cold drops, it was evidently kept in check by the action of the bean, until the latter was counteracted by that of the atropine. In such a case, outward application of the tincture (which I suggested, but the patient would not use it) or the use of strong Calabar bean, or physotigmatin would be advisable.

Case V. This was a case of obstruction of the nasal duct, complicated by tic, which was relieved in fifteen minutes by a little solution of Calabar bean (1 in 15) applied with a camel's hair brush. It returned in six hours, but was relieved in ten minutes by the bean. It caused the eye to become more injected than formerly. The tic did not return, and the obstruction of the duct ultimately required operative

interference. The patient had been suffering from tic for two days continuously when I first saw her.

Case VI. J. B., a man had severe tic on the left side of the head. He was seen on March 16th at 3 P.M. He had been suffering since early in the morning. This case being four miles from town, I used three squares and a half (they being in my pocket). In about ten minutes, there was almost total relief. In twenty minutes, two squares more relieved him entirely. The pain came on again during the night; but, having sent him a solution (1 in 30), he used a drop, and it relieved him immediately.

Case VII. On May 4th, I had intensely severe tic over the right eyebrow, caused by want of sleep and wearing a tight hat all day. Having no stronger in the house, I had to use a solution of one grain to the drachm. Of this, two drops relieved me slightly; and two more in half an hour removed the pain entirely.

Case VIII. Mrs. W., on May 16, had severe pain in the right side of the face, and was relieved in about half an hour by two drops (one first, then another) of a solution of 1 in 30.

Case IX.—July 22nd, 12.30 P.M. Mrs. P. had tic in the left side of the head and face. There had been severe pain since 3 A.M. I used a half-square (one-tenth of a grain of extract in each square). * Relief was obtained in ten minutes. At 7.50 P.M., there was still a bruised feeling, "but no sharp pain." I used a half-square. The pain entirely ceased in ten minutes.—July 10th. The patient came back for more squares. This is the second patient who has done so.

Case X. Mrs. M. had severe tic in the left side, recurring every evening for a week past.—5.45 P.M. I used a half-square (as above). She was relieved in five minutes. At 6.30 P.M., she was free from pain, "though there was still a bruised feeling." Both these cases were afterwards permanently cured by quinine. In them, as also in myself,

* These strong squares were very kindly sent me by Mr. Squire for trial.

and others in whom I have used the strong squares experimentally, the pupil always becomes *dilated*. These squares are very hard, and this may account for such an action, as they irritate the eye for about two minutes when used. Squares containing physotigmatin, could they be obtained, would be much better.

Case XI. J. A. had syphilitic paralysis of the right third nerve, probably from a tumor, with external strabismus, ptosis, dilatation of pupil, and neuralgic pains on the side of the face. I used one square on July 4th. The pain was relieved.—July 5th. I applied one-tenth of a grain of the extract in the eye, causing congestion of the conjunctiva relieving the pain, and producing contraction of the pupil. In this case, the fact that the pupil became *contracted* is very noteworthy, as the third nerve could not play its ordinary part. Possibly the congested state of the vessels may have acted as a cause of contraction.

In none of these cases did I observe decided contraction of the pupil, except in Cases IV. and XI. In Case III., the pupil became smaller than usual, though never contracted to any great degree. In no case was vision interfered with by the Calabar bean—except slight temporary confusion in Case III., lasting about two hours. In the experiment referred to in the first note, vision was temporarily confused (after six squares had been used), but the confusion soon passed away. No general symptoms were ever observed. I am quite hopeful that anyone giving Calabar bean a fair trial will find it an useful and safe immediate remedy for tic, leaving time, in cases requiring such treatment, for the use of quinine and iron, or other medicines calculated to have a permanent effect. For my own use, I intend to obtain, if possible, stronger gelatine squares, that being, in my opinion, the most convenient mode of application, being easily applied and certain in action. The idea is a very ingenious one, and does credit to the inventor.

Derangement of the Heart.—Case. December 12th

1873, A, R., a mill-worker, suffered from continuous pain in the left side, with occasional extra severe spasms. She was of florid complexion. Her lungs were healthy. The liver was normal in size. She sometimes suffered from flatulence, but not at present. She had been in constant pain for three days. The pulse was 88, irregular, intermitting, easily altered in number by exertion, sometimes increased, sometimes decreased in frequency ; there were sometimes twenty beats in one quarter minute and twenty-four in another. She had palpitation. There was a rough *bruit* at the base with the first sound. As I had the patient under observation until March 21st, my notes are much too long, to be reproduced here. Suffice it to say that I began with one-sixth of a grain of the extract, giving immediate relief. This was continued night and morning for two days, the patient being relieved from pain. She increased the dose to a quarter of a grain, with good effect, but this I then only allowed once a day. For continued use, one-eighth of a grain twice a day [after larger doses at first] seemed sufficient. The *bruit* became much softer, and the pulse fell to 68 under the use of the medicine. On one occasion, being five days without the medicine, she became so ill with the pain in her side, [at the apex] that she had to leave off work. She was sometimes very irregular in visiting me, coming only when it suited herself, and, *when she required a new supply of medicine ;* but I saw enough of her to convince me that the bean had a decidedly good effect. The case being one apparently of constriction of the aortic orifice, the bean would act directly by relieving that condition. Such a case in an hospital under hourly observation would be very valuable; as I saw it. the results obtained only point hopefully to further use of the drug in similar cases.

Febricula.—CASE. December 12th. My own child, a boy four years of age, was attacked by fever without any apparent cause. At 4.40 P.M., his temperature in the axilla

was 102 ; pulse, 128. I gave him one thirty-fifth of a grain of extract ; and again at 5. 50.P.M., the same dose. At 6.30 P.M., the pulse, was 118 ; temperature 99.6 ; the skin having, from being dry, become quite moist to the touch.

A favorable opportunity has not occurred lately to me to try Calabar bean for the purpose of reducing temperature, but the result obtained in this one case, agreeing well with what could be expected from Dr. Fraser's experiments, viz,, expansion of the semi-contracted peripheral vessels, points to its use and cases in which reduction of temperature is desired and where there is nothing special to prevent it from being used.

Bilious Remittent Fever.—CASE. R. A. This was a case of "bilious remittent" fever, in which I gave cautiously up to half-grain doses, one grain being given in a day, producing slight drowsiness, and profuse sweating ; and, independently of the ordinary course of the fever, bringing down the temperature from 105, at 7.45, P.M.,to 103 at 11.00, P.M. When the remittent character of the fever showed itself distinctly, I treated the patient with tincture of iodine, in doses of from ten to fifteen minims, thrice daily, which I have for some years used in preference even to quinine in such cases.

From this and other cases, I believe that, *if the strength of the extract can be depended on*, the doses given in the *British Pharmacopœia* [one-sixteenth to one-fourth of a grain] are too small for an adult. To produce any decided effect, one-sixth to one-half of a grain, and, *with* great caution, even higher doses should be given, of course beginning with small doses.

I am fully convinced that, in Calabar bean and its antagonist atropine, the *Pharmacopœia* possesses two remedies equally valuable with opium, if not more so. This value is not at present appreciated, but would soon be so were their actions made, more fully than they ever yet have been, the subject of observation in all diseases in which it may be desirable either to expand or to contract the vessels, by some hospital physician, whose position gives him the power of closer observation, and more accurate deductions than one working in private practice can ever hope to obtain.—*British Medical Journal.*

CANADA

Medical and Surgical Journal.

MONTREAL, DECEMBER, 1874.

INSANITY AND ITS INCREASE.

Amongst our original matter this month will be found a paper from the pen of Dr. Henry Howard, the superintendent of the Provincial Lunatic Asylum at St. John's, P.Q.

The question propounded by the author is whether anything can be done to arrest the increase of Insanity and Imbecility. The author says that in the Province of Quebec, there are 3,300 persons suffering from these mental conditions. This is alarming, and worthy of grave consideration, it is a most important topic, and as the author truly observes, the best way to arrive at sound conclusions is for those interested in these matters to express their convictions, if based on personal observations. The editor of this Journal has, on more than one occasion during the past twelve years honestly expressed his views on this subject. He has sounded a note of warning to the government of the day but without effect, as the old and effete law respecting insanity still exists without amendment. This law will be found in the 14 and 15 Vic. Cap. 83, and by its provisions "any person who is lunatic, or dangerously mad, shall by warrant of any two, or more justices of the peace be apprehended and kept safely locked up in some secure place within the District or County where such City, Town, Village Township, Parish or place lies, as such justices under their hands and seals direct and appoint."

In this act we find that the unfortunate who is lunatic or dangerously mad is subsequently visited by, or brought

before, two justices of the peace and two physicians, and upon their joint certificate the poor wretch is sent at last to a Lunatic Asylum. We have before pointed out that this unwieldy process, this inhuman treatment of persons suffering from mental disease is certainly followed by confirmed insanity. The brain is the organ of the mind, and although Pathological research has not been able in every instance to point out undeniably the lesion which exists in the lunatic or person dangerously mad, yet reasoning from what is observed in diseases of other organs, we infer that there must be some structural change sufficient to occasion the conduct of the person so afflicted. As scientific truths gradually unfold themselves man becomes cognisant that he is subject to certain ills and derangements of his body which are in a great measure due to his folly and error. Preventive medicine is now unfolding facts, which, had they been announced a century or so ago, would have been regarded as sacrilege and followed by condign punishment.

The brain is as subject to derangement as other parts of our body, and being of more delicate structure is more liable to be seriously injured, hence, it may take months to undo what has been done in a few hours, but this undoing demands scientific and prompt measures. Shutting up insane persons in a cell of a common jail and feeding them for weeks on skilly is neither a reasonable nor scientific method of treatment,—but the reverse,—and is certain to be followed by confirmed madness, which gradually lapses into imbecility. If we desire to lessen the number of cases of induced imbecility, we should first alter the present law. Having done so, then all those suffering from acute insanity should be removed without delay to an insane hospital, there to remain a reasonable time, when, if in the opinion of the medical officer of such Insane hospital, their case becomes confirmed or is no longer hopeful, they should then be removed to a proper asylum. Of course, this might be at

the outset, an expensive undertaking, but, in the end it would be a great saving, as the present system is every year adding to the number of permanent lunatics, many of whom would, we believe, have been restored to the industrial population, if judicious measures had been adopted at the outset of the disease. With regard to Dr. Howard's paper on the educational errors of parents and teachers, we believe every word he utters ; and furthermore, deem it is a matter of regret that his valuable observations will not reach the public eye, as our Journal is read by few other than professional men.

THE PROPAGATION OF TYPHOID FEVER.

The prevalence of typhoid or, as it is otherwise called, enteric fever is unusually great at the present time ; its rapid and alarming increase in certain localities is attracting much discussion on the nature of the disease and its mode of propagation. That typhoid fever is generated by a special poison or contagious principle is daily becoming more positively demonstrated ; but if it is developed by a certain thing, seed, fungus, or special contagious principle, it would appear that it requires an appropriate soil in which to germinate. Hence we have in certain localities whole communities stricken with the malady, whilst others subject to a like exposure (as far as we are able to judge) escape the ravages of the disease.

It is of great practical moment to ascertain if possible in what form resides the germs of this disease. There is much conjecture on this subject, but very little agreement, on any point, in the ranks of the devotees of science. Some hold that neglect of ordinary cleanliness of premises will be sufficient to create typhoid fever, whilst others state that no amount of stench, foul gases, or noxious effluvia from decomposing animal or vegetable matter, will generate the disease typhoid fever unless the germs of typhoid fever be there to act as a leaven.

From the observations of Dr. William Budd it would appear that typhoid fever is alone propagated by contagion, and he advances so many arguments on this head as to almost render fruitless any attempt at contradiction. He states that typhoid fever is never spontaneously germinated—any more so than is small-pox, scarlet fever or measles ; that it is propagated through a special virus or poison.

We will not in this place pin our faith to the doctrines of Budd or to what has been termed the pythogenic theory, but will simply say that in this city of Montreal there exist at the present time those very conditions which lead to the spread of the disease typhoid fever, and that those conditions have been created by the want of supervision of those whose duty it is to supervise and look after the public health. We have a Board of Health who err either from not knowing better, from being ill-advised, or from being powerless. Some weeks ago the annual work of emptying out the Craig street sewer was commenced. From the peculiar engineering skill exhibited in the construction of that sewer, which is one of the largest in the city, the soil from the upper parts of the city, from Cote à Barron downwards, lodges in the Craig street sewer, and almost fills its capacious cavity with a black muck of various compounds. We learnt with surprise that this vile mass, after removal from the sewer, is utilized to fill up certain streets, as in Ontario street, which, from having been recently opened, requires raising at certain points. When we were informed of this fact, we doubted it ; although willing to admit that our Corporation authorities were blind to the interests of the public, nevertheless we did not think that such a monstrous iniquity was being perpetrated in our midst. Let it be stated that the Craig street sewer receives the drainage from both General Hospitals ; these two institutions have withn them small-pox wards, and laying aside

the question of typhoid fever, small-pox is known to be readily propagated by exhalations and excreta from the bodies of those afflicted with that disease. Is it, then, to be wondered at that small-pox is at present alarmingly on the increase? But if we examine the records of our hospitals, or our mortality tables, we shall find that typhoid fever is likewise very prevalent. Now, with regard to the generation of typhoid fever, we care not which horn of the dilemma the Board of Health are placed upon, for certainly spreading on our public highways the filthy exuvia from our typhoid fever patients and small-pox patients is a most insane proceeding, and is undoubtedly followed by the very condition witnessed in this city at the present time—the rapid increase in the number of cases of both these diseases. Have the Board of Health any powers in the matter? or do their suggestions, if they have made any, fail to produce the desired effect in the stoppage of such iniquity? We are told that the matter removed from the sewers is not offensive; that it is sweet and clean, and rather a desirable substance for the purpose for which it used. Can our Health authorities inform us whether the germs which propagate small-pox or typhoid fever possess any odour. Do yeast germs in minute division possess any odour? Yet the smallest particle is sufficient to produce fermentation. To say the least of it, it is filthy, revolting, abominable and dangerous. It matters not whether these diseases are occasioned by a special seed or by decomposition: both conditions are here produced, and as matter is indestructible, we need not suppose that the covering up of this compost with snow, or its being exposed to the rigour of our winter, will in any way lessen the evil. The summer's sun, aided by the rains of spring, will liberate all kinds of gases, to be wafted into our open windows, and later on, this mass of filth will dry, be reduced to a fine powder, and be blown about by the wind into every quarter of the city.

It has been said that "the health of the people of any country should have the first and highest claim on the Government." Unfortunately in this country sanitary legislation is not even in an embryonic state. We are absolutely without the very first principles of sanitary legislation. In fact, we are in as bad a condition in that respect as were the people of England during the reign of Henry VIII. In those times, when disease and pestilence did occur, it was looked upon as an evidence of Divine wrath, which drove the superstitious to their knees, instead of stimulating them to ascertain the cause of the plague, with a view to its removal.

BOARD OF HEALTH.

MONTREAL, Nov., 1874.

DEAR SIR,—Will you please report the total number of cases of Typhoid fever and Small Pox you have had under your care, during the month of October, and make the necessary remarks on the cause of these diseases.

REPORT :—Please give the residence of the cases reported, in order to know the unhealthy localities, and take the necessary precautions.

The above is a circular which has been left with every medical man in the city, and we believe a sanitary officer is detailed to make a personal application for the information sought. We question very much whether the profession will comply with this request, and if even the returns become general, whether any good will result.

Although it may be desirable to obtain correct information on this important topic, yet the Board of Health are powerless and cannot enforce their demand. Typhoid fever is very general in all quarters of the city, but more especially where there exists a state of overcrowding of buildings for the accommodation of the poorer class. The system of covering every inch of ground with inferior residences, and filling them with tenants, which is to be seen in all

parts of our city, is very injurious to the health of the community ; it not only affects the community where such residences exist, but also those of the better class even to considerable distances. But is the Board of Health in a position to enforce compliance of speculators and builders, in common-sense principles in the creation of tenements. Public health, is not to be preserved by the various means adopted by our Health Board. Statistics are all very well and useful if they can be relied upon, but to be useful, they should be general, not a few desultory remarks from a few individuals. It appears to us that the Board of Health is beginning its work at the wrong end. Let us have a comprehensive public health act, and then will the Boards of health in our various cities be in a position to cope with the difficulty. The indication of the residences of individual patients, as is requested by the above, will not point out the unhealthy localities, and what is meant by "taking the necessary precaution" is utterly beyond our comprehension. What necessary precaution is the Board going to take supposing it be reported that the wife or daughter of one of our merchant princes is lying dangerously ill with Typhoid fever. The Board of health has lamentably failed in its mission : if instead of sending round silly and useless circulars, it took upon itself to supervise the sanitary state of the city generally, we would not have to complain of the many evils which exist amongst us, not the least of which is the spreading of sewage matter on our roadways.

VACCINATION AND SMALL-POX.

We extract the following from the *Gazette* of the 2nd instant. It speaks for itself, and is identical with the observations and returns of the London (England) small-pox hospital, which we published some months ago :—Ed.

"A grossly false and pernicious statement has of late been somewhat widely circulated by the opponents of

vaccination, and not a few credulous persons have been misled. It has been asserted boldly that vaccination increases the liability to take small-pox, instead of being the great and only safeguard against its attacks. These and similar statements are freely made and persistently circulated, although no facts or figures can be brought forward in their support. But reliable facts should be the best answer to the ignorant prejudices and to the absurd and criminal representations of such people. The following statistics have been compiled from the books of the Montreal General Hospital, and any person can assure himself of their correctness by calling at the Hospital and enquiring for himself. During the past twelve months there have been 55 *unvaccinated* persons admitted into the small-pox wards. All of them except five have had the confluent form of the disease, *i. e.*, the serious form ; and out of the 55 who were admitted 28 died, showing a mortality in the *unvaccinated* of over 50 per cent. On the other hand, among those who had been once vaccinated and had two good marks on the arm, there were only four deaths. Only seven had more than two good marks, and those seven had the mildest form of the disease, and made a rapid recovery. Only two cases were admitted during the past twelve months who had been *successfully revaccinated*, and in them the disease was so mild that they might have been permitted, except as a precautionary measure, to follow their ordinary avocations. And what conclusions would any sensible man make from these data? In the *unvaccinated*, the mortality was over 50 per cent.; among those who had been properly *vaccinated* in their infancy, but who had neglected to be revaccinated, there were only four deaths, while only 2 cases had been admitted where *revaccination* had been successfully performed, and they were of the mildest description."—*Montreal Gazette.*

Medico-Chirurgical Society.—The fourth annual meeting of this Society was held in the Library of the Natural History Society on Friday evening Oct. 16th, 1874, when the following office-bearers were elected for the ensuing year: President, Dr. Reddy ; 1st Vice-President, Dr. Craik ; 2nd Vice-President, Dr. Godfrey ; Secretary-Treasurer, Dr. Roddick (re-elected) ; Council, Drs. Scott, Fenwick and Gardner.

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Observations on some of the Causes of Insanity. By Geo. A. Baynes M.D.

In your December number of the Canada Medical and Surgical Journal, the article by Dr. Henry Howard on the increase of Insanity, truly calls, as you remark, for the most serious consideration from the great importance of the subject. Dr. Howard asks, "Can anything be done to stop the increase of Insanity and Imbecility," and as I candidly believe, that something may be done in more than one direction, that is not now even attempted, permit me to give your readers some thoughts that seem to be applicable to the subject.

The greatest benefit must arise from the education of the public to the now-avowed importance of the science of hygiene. We must have this taught in our schools and colleges, as holding a place in general education equal in importance to any subject at present taught. They must know that the great pre-requisite for a happy and useful life is "A sound mind in a sound body;" and as Montaigne says: "That those who separate the education of the mind from that of the body, do a great wrong."

The law of heredity is still a subject of controversy; but there are points npon which all biologists are agreed, viz: any particular characteristic, especially if it be of the nature of a deterioration or taint, when common to both

parents, is liable to be intensified in the offspring. It is on this account that marriages between blood relations are unadvisable, inasmuch as latent morbid tendencies, should they form part of the organic constitution of the family are almost certain to become developed in the children. It is almost patent in England, that the cause of the scrofulous tendency and insanity in the Royal family in the last generation was attributable to the continual alliance with their German relations. I think there is no doubt that consanguinity in marriage is a ground from which so much of our Insanity arises.

The causes of Deterioration and Disease may be classified according to Dr. Wilson, under two heads, viz., "Social" and "Material." The latter are to be treated by legislative enactments, so that we shall content ourselves for the present with the "Social" causes of Deterioration. The state is almost powerless to control these, although some little may be accomplished. But the greater part must be remedied by constant animadversion through the Press, the Pulpit and the Platform, as well as general instructions to family circles and schools by the Physician, the Minister and Journalist, or any other philanthropic person who will carry due weight with them. Intemperance, for instance, begins slowly and insidiously to undermine the general health of a man, and the habit becomes confirmed by an habitual and excessive use of alcoholic liquors. Its effects slowly develop themselves upon the digestion, then follows the impairment of the physical powers generally, then the nervous system is undermined, and nervous exhaustion ensues, evidenced by the tottering steps, the tremulous hand, and twitching of the muscles, and this followed by the mind and will becoming so enfeebled that they are powerless to resist the cravings of this morbid appetite and the drunkard becomes a veritable dipsomaniac, only fit for an asylum. But if these afflictions were to end here we might possibly satisfy our consciences with the knowledge

that he was injuring himself alone, and it was none of our business; but unfortunately the law of heredity comes in here with great force, and not only the craving for strong drink is transmitted, but the cunning and thieving propensities developed in the parent to obtain it, are intensified in the offspring, making him a bane to society. We also constantly find that the enfeebled mind of the drunkard who is deprived of his mental and moral powers of discrimination is developed in idiocy or some other form of insanity in his offspring. As a proof of this the statistics of the State of Massachusetts affirm, that of 300 idiots 145 were the children of intemperate parents.

M. Morel, than whom no greater authority can be quoted says, "I constantly find the sad victimsof the alcoholic intoxication of the parents in their favourite resorts,—the asylums for the insane, prisons and houses of correction."

Much might be added of the general criminal propensities, almost amounting to insanity, of the self made drunkard, as well as the congenital criminal, that would be of interest, but this will suffice for the present.

I can hardly agree with Dr· Howard in saying that we must let the marriage question rest, because it touches on so tender a point as Love, but rather use that very incentive to exert some influence in averting the consequences of injudicious marriages. So let us instill into our young men and women the evil results which must inevitably follow from marriages of this description, and seek to warn by their sad results, those who are blindly entering thereon. We must invite the Clergy to aid us, and work incessantly to achieve our object. For we not only have to work at the sad results of unsuitable marriages from the standpoint of Insanity, but the many other dire affections that are transmitted as a heritage to the incoming population, such as Phthisis and Tuberculous affections generally: including Scrofula, Cancer and many others which it is unnecessary to mention.

The mental affections, according to Dr. Burrows, reach a percentage of 84, due to hereditary influence.

Take, for instance, marriages of blood relations alone ;

M. Devay found out of 121 consanguine marriages that of the offspring 22 were sterile, 27 deformed and 2 deaf mutes.

Dr. Bemiss of Louisville investigated 34 marriages of this description with the following result: seven of the 34 were infertile. From the 27 fertile marriages 192 children were born ; of these 58 perished in infancy, or early life, of the 134 who reached maturity 46 appeared healthy, 32 deteriorated, 23 were scrofulous, 4 epileptic, 2 insane, 2 dumb, 2 blind, 4 imbecile, 2 deformed, 5 were albinos, 6 had defective vision, and 1 had chorea. The few remaining could not be traced,

The statistics of Dr. Howe, are still more appalling ; out of 95 children born of 17 marriages of consanguinity, 44 were found to be idiots, 12 scrofulous, 1 deaf, 1 a dwarf, and only 37 who enjoyed tolerable health.

Enough has been said to show the awful results of this discription of marriage, and add to them the marriage of persons who have a taint of disease, and we see that this subject alone touches the very foundation of a nation's prosperity and growth.

All these points must be made clear and plain, and become generally known, not only through our Medical press but by daily newspapers and other household periodicals. So that when we have drawn public attention to these matters, parents will see to the healthy marriage of their own children, by instilling into those of them who are at a marriageable age, the dire results of an injudicious connection.

Dr. Howard has so ably exposed the evils to our children of the present "high pressure" system of education that, to hear his arguments is to be convinced of their truth, the amelioration of the system, and an improvement in the present

order of teaching "the young idea" is most truly to be desired, and I believe will only be thoroughly effected when attention is first paid—not as to how far a boy has advanced to class him, but how far his mental powers can be fairly graded. That intellect can grow like any other of the organs of the human frame, we all allow, and that there is a kind of "pari passu" growth is equally clear, that a healthy development of the body in all its functions is a fair precursor for an equal mental growth, we may expect to find, as a rule, but it is not always so. I knew an instance of a man who as a child was perfectly healthy and strong, intelligent also, but he never spoke a word till he was five years old; he was examined several times, his parents being persuaded that some organic defect was the cause, when,however, he did begin to speak, in three months he was almost equal to any child of his age. The study of the mental capacity of a child should early engage the attention of a parent, nor should there be a hasty judgment as to the power of a child's abilities. In children of large physical growth mental development is sometimes tardy, and a lad who may have been thought dull and stupid as a boy, surpasses the expectations of his friends by an unexpected power to grasp and tenacity to retain what before he was dull of apprehension to master; the reverse is often found also, that those in whom the highest hopes are centred often fall behind, and are passed by the steady plodding student.

The late William Pitt was a remarkable instance of early mental power, his tutor, the then Bishop of Norwich, says that at the age of 12 he could read Greek plays with perfect facility, as if it was his native tongue. His early grave was the consequence of a mind that from his childhood was unnaturally premature, and ultimately wore out the frame that held it. It is a deeply interesting study to trace the gradual dawn of intelligence to the full capacity that the mind can reach, the period of life in which it is most vigor-

ous, the change that comes over it from the elasticity of its first strength to its maturity. The mental powers while they gain in one direction lose in another, the brightness of youthful and rapid apprehension at 22 is before that of 42, while the mature judgment of the latter is far in advance of the former. How much then depends on the cultivation of the mind from its earliest growth, how needful to watch its powers to give it just so much as by a healthy tension demands an advanced action, and avoiding that strain which rather enfeebles than improves its powers. If the exercise of reason in a child was as assiduously cultivated as charging its memory with what it does not understand, or its youthful mind can possibly grasp, far more satisfactory results would follow; and school would once more regain its primitive meaning when *Schola*, with its leisure, sport and games, was indeed remembered in after life as its happiest hours.

686 Dorchester Street.

Uterine Thermometry. Translated from Virchow's Archiv, Bd. lxii. *Hft.* 1.

In cases where the recognised diagnostic symptoms of the death of the child are absent or uncertain, Cohnstein, states that with the aid of the thermometer we are able to distinguish whether the child lives or not. He bases his assertion upon the fact that the temperature of the child in utero is higher than that of the mother in as much as the warmth communicated to it by the mother is supplemented by that produced by itself. In consequence of this independent development of warmth in the fœtus the temperature of the pregnant uterus is higher than that of the vagina. With the death of the child the temperature of the uterus must necessarily sink, because the production of warmth in the child ceases, and also because to the dead mass warmth is given up. If we mea-

sure, then, the proper temperature of the fœtus by the temperature of the uterus, and compare the obtained result with the temperature of the vagina, we can in this way diagnose whether the child lives or is dead. It is to be remarked that in the first measurements, only those cases in which the temperature of the uterus is found equal to, or lower than, that of the vagina would speak positively for the death of the child. Repeated measurements, then, would be necessary to establish the death of the fœtus, if the temperature of the uterus is found higher than the vagina; that is, immediately after the supposed death of the child. When the child dies its *own* warmth disappears; but the rapidity of the cooling process is not great, because the difference between the warmth of the child and that of the surrounding medium is not much. To this must be added the possibility of a post mortem elevation of temperature. We should only conclude in such a case that the child was dead, if, two or three hours after the first measurement, which showed an elevated temperature, a lowering of the uterine temperature was found. Many cases have proved to the author the correctness of his view, from which he quotes the following: I.—Primipara; confinement expected on 15th June, onset of the labor delayed, movements of the child no longer plainly perceptible. Careful introduction of a previously warmed thermometer into the cavity of the uterus, between the wall and the membranes gave:

Temperature of the uterus, 38,7C.
" " vagina 38,3C.

Diagnosis: the child lives. On the 24th of June, the birth of a living child took place. The introduction of the thermometer had no injurious influence on the course of the pregnancy.

II.—Multipara. Head position, measurement six hours before the birth:

Temperature of uterus 38,1C.
" " vagina 38,1C.

Birth of a decomposed child :

III.—Primipara ; presented the known subjective symptoms which point to the death of the child. Heart sounds not distinctly heard. Head position. In the beginning of the first stage, before the water escaped :

Temperature of uterus 39,0C.
" " vagina 38,6C.

Repeated measurements after three hours :

Temperature of uterus 39,2C.
" " vagina 38,7C.

The diagnosis, that the child lived was confirmed.

IV.—Premature labor in the seventh month cervix uteri patent, and easily passable to thermometer.

Temperature of uterus 38,5C.
" " vagina 38,5C.

Birth of a decomposed fœtus 10 hours after measurement.

V.—At the end of the third month in this case, pains and metrorrhagia came on. Repetition of the bleeding in the 4th and 5th month. Measurement in the 5th month :

Temperature of the uterus 38,4C.
" " vagina 38,6C.

From these measurements, retention of a dead fœtus was diagnosed. The author states that the value of his method has been tested by Fehling of Leipzig, and held good in a series of eighteen cases, with the exception of two. In one of these cases the elevation of temperature with the dead fœtus depended upon a febrile condition of the patient, which had set in before or during the labour. Both authors met with cases in which the death of the fœtus was rendered probable from the statements of the woman, and the deficiency of the heart sounds, where the thermometer afforded an exceedingly delicate test.

The thermometer introduced into the uterus, serves not only for the differential diagnosis between the life and death of the fœtus, but also for the establishment of an ex-

isting pregnancy, and this on the grounds before given. True, it is maintained that no conclusion can be drawn from the higher temperature of the uterus in opposition to that of the vagina, because also in the non-pregnant condition, the uterine temperature exceeds the vaginal. This assertion is as weak as the proof is deficient. In experiments on guinea-pigs, the author found, using the delicate method of thermo-electricity, that in the non-pregnant condition hardly any difference was discoverable in uterine and vaginal temperatures ; while, on the other hand, a marked and constant elevation of the uterine temperature was noted in pregnant animals.

The author admits that even in a non-pregnant condition of the uterus its temperature may be even 1, 5, C higher than that of the vagina. He has met with this in acute endometritis, metritis, para and perimetritis, and in excoriations and ulcers on the inner surface of the os uteri. On the other hand in Fibroma uteri, in ovarian tumour, and in enlargement of the belly by accumulation of fat, no increase in the uterine temperature can be detected. This negative evidence is of essential significance, because it relates to pathological conditions, which most easily are and have been confounded with pregnancy.

Should these conditions exist simultaneously with pregnancy the extraordinary difficulty of the diagnosis can be removed by the temperature measurements. It cannot be denied that the introduction of a thermometer, even for a few millimetres above the internal os, may prematurely interrupt the pregnancy. These cases, however, always form the exception, and do not outweigh the advantage of the thermometric investigation, if by the uncertainty of the ordinary symptoms of pregnancy a sure diagnosis seems necessary in the interests of the patient.

W. O.

HOSPITAL REPORTS.

Case of Double Aneurism—Cured by Carte's Compressors, after the failure of Flexion and Digital Compression. Under the care of Dr. FENWICK. Reported by Mr. S. J. Tunstall.

W, H., aged 57, was admitted into the Montreal General Hospital under the care of Dr. Fenwick, 1st October, suffering from Double Aneurism. Patient is a carpenter and joiner by trade, a well-nourished, powerful man, While serving his apprenticeship he had a great deal of heavy lifting, in placing bars, rafters, &c. ; but for the past twenty-one years his occupation, aithough requiring constant standing, has not been very laborious, He has had no severe strain, no unusual muscular exertion, has never suffered from Acute Rheumatism. He has been a hard and steady drinker for several years, but has always enjoyed excellent health. About the middle of June, 1874, he noticed for the first time an œdematous condition of the left leg ; then a swelling about the left knee, followed in a few days by stiffness and pain in the joint. The leg was most comfortable when semiflexed. and the pain became very severe when he attempted to straighten it. He at once applied for admission into Hospital ; while there, with rest and quiet, the swelling gradually disappeared ; no aneurism was made out. On the 8th of July he was discharged and returned to his employment, but found that after working a day or two, the pain and swelling returned and he was obliged to rest, For a whole month he continued working one day and resting the next. About the end of July he noticed a pulsation in the swelling, which increased so much that he was obliged to return to Hospital, where he came under the care of Dr. Roddick.

Upon examination, a large pulsating tumor was found in the left leg, involving the popliteal and the lower portion

of the femoral, situated immediately above the knee on the posterior and internal lateral aspects of the thigh, The following measurements were taken:—

Circumference of left leg around the most elevated part of the tumor . . . . . 17¾ inches
Circumference of right leg at the corresponding situation . . . . . 16¾ "

Digital compression was tried for eighteen hours, when the tumor was found to have become somewhat harder, but the pulsation still continued; while a small fusiform aneurism of the Popliteal in the other leg was distinctly made out. As there was not a sufficient number of students in town at the time to continue Digital Compression, it was determined to give Flexion a trial. A broad cotton belt with elastic sides, fitted with tapes and eyelets for lacing, and attached by straps to a waistband, to prevent it from slipping, was accordingly adjusted to support the limb in a flexed position, with as little fatigue to the muscles and discomfort to the patient as possible, It was found that flexion could not be kept up on one leg longer than twenty-four hours; it was, therefore, applied to the legs alternately. At the end of four days, the popliteal aneurism of the right leg was found to be a little smaller, while the femora popliteal of the left remained unchanged. A few days afterwards he left the Hospital and attempted to resume work. He was readmitted on the 1st of October, under the care of Dr. Fenwick. He has had no pain in the leg since flexion was tried. Pulse is slow and regular, and the heart sounds quite normal. The following measurements were taken:—

Circumference of left leg at summit of tumor 17 inches
" " centre " 18 "
" " base " 17⅛ "
Extent of pulsation felt: extreme breadth 10½ "
" " " length 5¾ "

The peculiar aneurismal pulsation is well marked, and

and the bruit very distinct. The edges of the tumor feel harder than they did in the summer, On the 17th of October, digital compression was commenced on the left leg and kept up by relays of students, who kindly volunteered their time and services. Hypodermic injections of morphia were administered freely, yet he suffered a great deal. At the end of 28 hours digital compression was discontinued, and the tumor was found to have become harder, especially around the edges, while the pulsation seemed to be more distant and the bruit less distinct. Encouraged by this evident improvement, Dr. Fenwick at once adjusted two of Carte's Compressors to the femoral above the aneurism, giving the patient instructions to apply them alternately himself. Improvement was now daily noticed ; the tumor became gradually harder and harder. and the pulsations more and more indistinct, till on the 23rd, the bruit could be heard in two places only, one about $1\frac{1}{2}$ inches and the other about $2\frac{1}{2}$ inches above the internal condyle. On the 29th no pulsation or bruit could be detected ; the tourniquets were accordingly removed, and a large firm tumor occupied the site of the aneurism. The patient was kept quietly in bed, and absorption of the tumor went gradually on. On the 5th of November the circumference was $27\frac{1}{2}$ inches, and on the 8th it had decreased to $16\frac{5}{8}$ inches. On the 24th of November two Carte's Compressors were applied to the femoral of the right leg, and were managed by the patient himself, as before. Consolidation went gradually on till, on the 15th of December the popliteal aneurism of the right leg was completely cured and the tourniquets removed. On the 19th the man was up and walking about, with neither pain nor swelling.

Case of Typhoid Fever. Severe Hæmorrhage from the Bowels.—Recovery under DR. WRIGHT.

Joseph Seale, æt. 21, admitted 12th November, a groom

(living with Mr. P. D. Browne above Sherbrooke street,) tall, well nourished, fair complexion. On admission he had all the usual initiatory symptoms characteristic of typhoid fever. He was ordered milk diet, with extra milk and corn starch and the following mixture :

℞. Hydrarg. Bichlorid. gr. 1, Syr. Zingib. 4 oz., Aquae 6 oz. A teaspoonful every 4 hours.

Pulse and temperature as in chart.

The bowels acted four or five times in the twenty-four hours for the first few days after his admission. The tongue, which was at first heavily coated with red tip and edge, became gradually dry and brown. There was not much local tenderness over the abdomen or any distension, but few spots were discovered. The Biniodide of Mercury ointment was applied to the abdomen.

The diarrhœa continued four and five times in the 24 hours up to the 18th instant, when it increased to eight and and ten times in the twenty-four hours.

18*th*.—To-day also had some epistaxis, and on examining his chest the physical signs of bronchitis were found present. He was ordered, in addition to his other mixture, the following prescription :

R. Vin Ipecac. 2 dr., Ext. Seneg. fld 3 vi ; Mist Camph. ad viii oz. ; tablespoonful every three hours.

21*st*.—To-day he again had epistaxis,and he passed blood from the bowels for the first time.

He was given 6 oz. wine, and a pill containing Plum. Acet. gr. ii ; Calomel gr 1-3, and pulv. opii. gr. ½ every three hours, and bran poultices were ordered to the abdomen.

22*nd*.—The hæmorrhage still continued, the bowels having acted four times since yesterday, with blood in each motion. An enema containing tr. opii. m xi, with four ounces of starch was ordered twice a day.

23*rd*.—Hæmorrhage still continues ; ordered 4 oz. brandy in addition to his wine.

24*th*.—Hæmorrhage still; bowels opened three times since yesterday ; extremely weak ; low muttering delirium. Sleeps with eyes half opened.

25*th*.—Hæmorrhage arrested. Only one motion to-day, scanty, and of an ochre color. Eight ounces Wine and six ounces Brandy given ; opium enemata stopped.

26*th*.—Bowels acted three times to-day ; no blood.

28*th*—From this date he began slowly to improve: the bowels only acting twice a day.

He is still in hospital, and is gradually getting strong, though still confined to bed. His cough is gone, tongue cleaned, and bowels regular. He is very deaf though there is no otorrhœa. The stimulants have been reduced to two oz. Brandy in the 24 hours.

The Bichloride mixture has been stopped.

Case of Typhoid Fever; Severe Hœmorrhage from the Bowels; Recovery. Under Dr. Wright.

Robert McCletchey, groom (in employment of Dr. Reddy) was admitted into the Montreal General Hospital on the third October, 1874. He is 20 years of age, well nourished and healthy looking.

For about a week previous to his admission he had been complaining of headache and general malaise, but had endeavored to keep on with his work. On admission he complained of severe headache, his skin was hot, pulse frequent, and tongue heavily coated, with red tip and edges. Pupils dilated, and expression dull and heavy. Slight tenderness in the right iliac fossa. Bowels open three or four times in the twenty-four hours. Motions loose and light in colour.

He was ordered milk diet, with extra milk and corn starch, and the following mixture was given him:

R. Acid sulphurosi, 3 iv. Syrup 1 oz., Aquae ad viii oz., a tablespoonful every 4 hours.

Oct. 5th.—Bowels acted seven or eight times in the last twenty-four hours, and a camphor pill was therefore given him every 4 hours, and the biniodide of mercury ointment ii sc, to the oz. was ordered to be rubbed over abdomen. No spots discoverable.

7th.—His tongue has become dry and brown, there is low muttering delirium at night and the diarrhœa still continues.

9th.—Ordered him 4 oz. of wine to-day, and on examining his chest the physical signs of bronchitis were present, he was also given the following mixture:

R. Liq. Ammon. Acet. ii oz., Vin Ipecac. ½ oz. Ext. Sene. fld. iii dr. Mist. Camph. ad viii oz. Tablespoonful every 4 hours.

10th.—To-day, for the first time blood was discovered in the motions passed from the bowels, for this he was ordered the following pill:

R. Plumb, Acet. gr. ii., Calomel gr. 1-3. Pulv. Opii. gr. ½. every 3 hours, and a blister was applied over the right iliac region.

12th.—The hæmorrhage from the bowels continued; in the last 48 hours he had had 6 motions with a considerable quantity of blood in each.

He was ordered an enema, containing Tr. Opii. mxl. Mucilage amyli 4 oz..

13th.—There was no hæmorrhage from the bowels to-day. He seems extremely exhausted, however, face pale and pinched, subsultus tendinum; pulse very weak and dichrotous; tongue dry and glazed. He was ordered 6 oz. of wine to-day.

16th.—Last night had a return of the hæmorrhage. To-day poultices were ordered to abdomen. 4 oz., of Brandy ordered in addition to his wine, and the following mixture:

R. Beber Sulph. i sc., Acid Sulph. Co. ii dr. Spts. Eth. Sulph. Co. ii oz. Aqua 4 oz., tablespoonful every 4 hours.

The pills are still given every three hours.

18th.—Hæmorrhage from bowels arrested.

Is now taking 8 oz. wine, and 4 oz. Brandy in the 24 hours.

20*th*.—No return of the hæmorrhage, and diarrhœa less. On account of his extreme debility he was given the following powders ; R. Quinae Sulph. gr. iii., Pulv. Camphor grij. every 4 hours.

From this date he rallied and began gradually to improve, and though convalescence was slow, he steadily progressed.

He was not able to leave his bed until the second week in November, from which time he rapidly gained strength, and was discharged on the 30th.

Reviews and Notices of Books.

A Practical Treatise on the Diseases of Women, By T. Gaillard Thomas, M.D., Professor of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, New York, &c., &c., &c. Fourth Edition, thoroughly revised, with one hundred and eighty-six illustrations on Wood. 8vo., pp. 801 ; Philadelphia, Henry C. Lea, 1874.

The general appreciation of this work by the profession is apparent, when it is stated that three large editions have been exhausted in little over four years. Stimulated by this favorable reception, the very able author has spent no pains in the revision, so as to make this, the fourth edition, a faithful exponent of the recent advances of gynecology. In his preface the author expresses the high gratification he has experienced at the cordial reception of his work, the former editions of which have been translated into German, and he announces that preparations are now on foot to render the present edition into French and Italian.

The work is divided into forty-eight chapters. The opening chapter gives a highly interesting historical sketch of the

subject of diseases peculiar to women. The author remarks that "a knowledge of what has been accomplished "in reference to any subject, and what was known con- "cerning it in previous ages, cannot fail to interest the "student and render him capable of appreciating recent "advances." In discussing the methods of examination the author gives preference to the use of Sims' speculum, and to the posture on the side instead of on the back. In the use of Sims' instrument the operator is forced to have an assistant, which is not always either convenient or attainable. Still, we fully concur with the author in his views with regard to this instrument, as we believe it to possess many advantages over the old cylinder or the various valvular specula now in use. It is certainly indispensable in all operative procedures. In speaking on this subject the author observes. "I have elsewhere called the results "of the labors of Récamier and Simpson eras in the pro- "gress of this department. I now venture so to style "those of Marion Sims. * * * Récamier marked "an era by improving our powers of diagnosis in exposing "the Cervix uteri; Simpson another, by opening to inves- "tigation the body of the uterus; and Sims a third, by render- "ing both investigations more simple, complete and satis- "factory." While admitting to the full the decided advantages of Sims' instrument, yet we do not think his invention can with justice be called an era in the history of the progress of this department, nor that the admitted advantages of this speculum to the practical gynecologist are to be compared with the beneficial results of the life-long labors of Récamier and Simpson.

The second chapter is devoted to the etiology of uterine diseases. In discussing this subject the author believes that the human female, if placed under favorable conditions, should in physical and mental development be in no great degree inferior to the male, and he maintains that the customs of, what is termed, civilized life have depreciated her

powers of endurance and capacity for resisting disease. The author bases his argument on what he has himself observed, and although he does not state that uterine disease is unknown amongst the class of the former slave population of the United States of America, he says when it is met with in that class it does not so profoundly affect the constitution, nor has it the direful consequences so frequently seen in the upper ranks of society. He remarks, "Those influences which, growing out of civilization and "refinement, tend most decidedly to produce uterine disorders, may thus be enumerated :—

"Neglect of out-door exercise.
"Excessive development of the nervous system,
"Improprieties of dress.
"Imprudence during menstruation.
"Imprudence after parturition.
"Prevention of conception and induction of abortion.
"Marriage with existing uterine disease."

Each one of these subjecrs is considered in its general bearing in the production of uterine disease, and in sum, ming up the author observes: "Neither appreciation of "nor desire for, physical excellence sufficiently exists "among the refined women of our day. Our young "women are too willing to be delicate, fragile and incapable "of endurance. They dread above all things the glow and "hue of health, the rotundity and beauty of masculinity, "the comely shape which the great masters gave to Venus "de Medici and Venus de Milo. All these attributes are "viewed as coarse and unladylike, and she is regarded as "most to be envied whose complexion wears the livery of "disease, whose muscular development is beyond the sus-"picion of *embonpoint*, and whose waist can be almost "spanned by her own hands. * * * These are "they who furnish employment for the gynecologist, and "who fill our homes with invalids and sufferers."

The next chapter is devoted to the diagnosis of the dis-

eases of the genital organs, and here we have touched upon the various rational signs which should always be first elicited before proceeding to a physical examination. In this connexion the author advises the use of an anæsthetic in cases where the investigation is attended with much pain, or in tonic spasm, or where we are forced to examine a virgin, in whom, from over-sensitiveness, a correct diagnosis would be impracticable without anæsthesia. In this chapter is described the various instruments used by the gynecologist to aid him in his inspection, such as the speculum, the uterine sound, tents of sponge and laminaria, the aspirator, &c. We next come to the more practical part of this valuable work. In chapters four to twelve are discussed the various diseases and injuries met with as affecting the vulva, vagina, and perineum, urinary and fecal fistulæ, and the various means adopted by the surgeon for their removal or cure. There is a chapter on rupture of the perineum, an accident of not unfrequent occurrence during parturition. The author classifies all cases under two heads: "Complete and partial rupture. These include " the following degrees of destruction:

" 1st. Superficial rupture of the fourchette and perineum, " not involving the sphincters;

" 2nd. Rupture to the sphincter ani;

" 3rd. Rupture through the sphincter ani;

" 4th. Rupture through the sphincter ani and involving " the recto-vaginal septum."

In discussing the treatment of these injuries by bringing the torn edges together with sutures, the author is decidedly in favor of immediate action. He remarks that the worst cases met with generally follow instrumental or manual delivery. After the birth of the child the mother is most likely in a profound anæsthetic sleep. Every practitioner should therefore be prepared to attempt repair of the injury by operative measures at once. If successful much suffering to the patient will be saved, and

if the attempt fails the patient is in no worse a condition. There are names of high eminence who condemn the practice of immediate operation in these cases, and in verity we have always regarded their teaching as erroneous; with all the disadvantages attending such injuries the, simple tying the legs of the patient together will, in some minor degrees of rupture be followed by kindly union, and on more than one occasion, when the rupture has been extensive we have proceeded at once to close the wound with the quilled suture, and success has always been the result. The directions given by Dr. Thomas are very practical, he furthermore advises that if failure should follow, no further attempt should be made until all the results of the parturition have entirely passed away.

We have an excellent chapter on vaginismus, a condition of over-sensitiveness of the ostium vaginæ, or, as our author terms it, hyperæsthesia in the nerves of the vaginal mucous membrane at the site of the hymen, which occasions spasmodic contractions of the sphincter vaginæ muscle, sufficient to resist any attempt at intercourse. This is a condition more frequently met with than is supposed. Dr. Sims was consulted seventeen times in well-marked cases in the space of two years. We have ourselves met with this condition frequently, and in some have attributed it to oversensitiveness on the part of the husband, and have simply advised the employment of moderate force to secure his marital rights. In some of thèse instances success attended the endeavor; in others, however, signal failure followed, and other means had to be resorted to.

Chapters seven, eight and nine are on Vaginitis, atresia vaginæ and prolapsus vaginæ and vaginal herniæ. We next have a most important subject discussed in chapters ten and eleven, viz., Fistulæ of the female genital organs. This is perhaps the most distressing accident that can occur to the human female; fortunately, however, it is usually amenable to relief by operative measures. Specific directions are

given by our author for the performance of this operation, but the peculiar circumstances of each case, the extent of the injury and the size of the opening, will have to guide the surgeon in the method to be followed.

The author mentions four methods which are at our command for curing, or at least relieving a patient suffering from urinary fistula.

"1st. Cauterization; 2nd. Suture; 3rd. Elytroplasty; and 4th. Occlusion of the vagina or uterus."

The first method, our author states, has almost fallen into disuse. Malgaigne says it should never be employed except when the fistula is almost imperceptible, and even then Sims' operation is far preferable. In describing the operation by the suture some difference of opinion exists with regard to paring the vesical mucous membrane. While Simpson and Marion Sims caution the operator against wounding the mucous membrane of the bladder Simon of Heidelberg intentionally involves it in his incision, and the success attending Prof. Simon is remarkable; out of 105 patients operated on by him for vesico-vaginal fistula, he reports as cured, 92; almost so, 5; discharged as incurable, 2; died, 6.

The next seven chapters are devoted to the consideration of uterine pathology and treatment; then we have discussed the subject of uterine displacements in eight chapters. The author then considers periuterine cellulitis, pelvic peritonitis, pelvic abscess and hematocele; and subsequently takes up the consideration of fibromata, uterine polypi, sarcoma and cancer. Then follows disorders of menstruation such as dysmenorrhæa, menorrhagia, amenorrhæa, and after taking up the subject of amputation of the neck of the uterus, the author enters upon the discussion of diseases of the ovaries at chapter forty-three. We shall not follow on to the consideration of the operative measures, which are ably discussed in chapter forty-six, for already has this notice extended beyond the space allotted.

The statistical tables are very valuable ; at page 729 will be found the remarkable results of ovariotomy in the hands of Spencer Wells, Clay, Marion Sims, Keith, the author himself and others. These are very encouraging to the surgeon. We have always thought, and believe that a small ovarian cyst can be removed with less risk to the life of the patient than one of enormous size. Why then delay ? If our diagnosis amounts to anything, and that we are convinced that an ovarian cyst exists, we should have no hesitation in advising its early removal. In conclusion, we heartily commend this valuable treatise. The style is clear, pleasant and very readable. The publishers have done their part, and produced a volume in the highest degree artistic.

Periscopic Department.

SURGERY.

Clinical Lectures Delivered in the Middlesex Hospital. By J. W. Hulke, F.R.S.

ON A WOUND OF THE PALM.

Gentlemen,—In wounds of arteries attended with such hemorrhage as to require ligature, the aphorism so well expressed by the late Mr. Guthrie, and which he so ably illustrated—that "two ligatures are necessary, one on each end of the divided vessel, or one above and one below the wound should the artery not be divided,"—still remains and will remain the rule of practice, subject perhaps to the modification that some surgeons will prefer to completely sever a merely pricked artery, and to twist the discontinuous ends instead of to tie them.

You saw this done a short time ago in the case of a boy in Broderipp ward, who was brought to the hospital with a wound in the forearm made by a broken bottle. He had lost so much blood as to be blanched and nearly pulseless.

The skin wound was at the inner side of the forearm, making it most likely that the ulnar was the injured artery. In order to reach the bleeding vessel a tourniquet was placed on the brachialis and the wound enlarged. It was then found that the piece of glass had crossed in front of the ulnar artery without injuring it, and had nearly severed the radial. A wide gaping hole in it was plainly seen. A thread was placed around the vessel above, and another below this, and on removing the tourniquet the bleeding did not recur. He made a good recovery. In the following case you also saw the same practice adopted :—

A man was stabbed through his left cheek with a table-knife which made a skin-cut one inch and a half long, and passed slantingly downwards into his mouth, deeply notching his tongue. Blood ran so freely from his mouth and cheek that in a short time his clothes were drenched. Whilst an assistant temporarily lessened the bleeding by grasping the cheek between finger and thumb, and by compressing the facial artery against the lower jaw, the wound was enlarged, the severed facial found, and both its ends tied. The gaping notch in the tongue was closed by stitches placed deeply so as to compress the bleeding vessels. The bleeding did not recur ; the wounds healed quickly, particularly that of the tongue, and the man despite his large loss of blood, was quickly well.

Cases such as these might be almost indefinitely multiplied ; but there are others, fortunately of less frequent occurrence, where the practice so strongly insisted on by Guthrie cannot be adopted, and deligation of the feeding arterial trunk at a point between the wound and the heart is preferable. Under some circumstances, indeed, the surgeon has no choice but to do this. For instance, an artery opened by a wound or by ulceration may be quite inaccessible. Thus in the later stages of cancer of the tongue, where by extension of the disease to neighboring structures the lower jaw can be separated from the upper to only a

very slight extent, it is often quite impossible to find the bleeding point ; and within my recollection in several cases there was no choice but to tie the common carotid. Again, an artery less deeply placed, and not absolutely inaccessible, may yet be so embedded amongst other important structures that an attempt to reach it where wounded may be more damaging than tying the trunk above the wound. Wounds of the palm very frequently exemplify this. The vessels are not large, and therefore are not conspicuous in the wound ; they bleed very freely owing to their free anastomoses ; the loose tissues about them soon become infiltrated with blood ; and they are so bedded between the tendons that where the wound must be enlarged to find the bleeding vessel this can hardly be done without risking the integrity of the hand, and it becomes preferable to tie a main vessel above the wound ; and here the choice lies between the radial and ulnar arteries above the wrist and the brachial artery. In the following case recently in Broderipp Ward the latter was selected :

A man, aged 28, on March 2, in corking a bottle broke it, and a splinter of glass was driven into the inner side of his right palm. The little stab bled so freely that by the time (only a few minutes after the accident) he reached the hospital his clothes were already drenched, and the blood had run down into his boots. The house-surgeon applied a graduated compress, which perfectly stopped the bleeding, and the man, who would not be persuaded to become an in-patient, went home. All went on well during five days, when on the morning of the seventh, on his way to the hospital to have the wound dressed, as he jumped off the footboard of an omnibus, a fresh and profuse hemorrhage began The house-surgeon now put a tourniquet around the arm, and cautiously enlarged the puncture in the palm in search of the wounded vessel. It could not be found. He therefore again methodically applied a graduated compress, and made the patient enter the hospital, which he previously

would not do. Three days after this, at 8 a.m., he coughed and felt directly blood running from his hand. He again lost a large quantity. The bleeding ceased when a tourniquet was put around his arm. The compress was removed, the wound cleared of a large clot, the cuticle around it which had become loosened was clipped away, but the wounded vessel would not bleed, nor could it be made to do so by violently kneading the hand and forearm, although the radial and ulnar arteries pulsated strongly.

This is a very frequent circumstance in wounds of arteries. They will not bleed when you want them, and in the absence of bleeding you often cannot tell the point whence the blood has come. Unwilling to tie an arterial trunk at a distance unless absolutely driven so to do, I again renewed the palmar compress, adopting the former precautions of carefully bandaging the fingers, hand, and forearm, and placing long, firm compresses upon the radial and ulnar arteries. The forearm was also flexed at an acute angle on the arm—a posture in which the acute flexion of the brachial artery at the elbow greatly lessens or quite obstructs its channel. Two days later (March 12) a fourth hemorrhage occurred. It was arrested as before, with a tourniquet, and when the wound was exposed again it would not bleed; it was clean, and not at all sloughy. He was now so weak that I was unwilling to expose him to the risk of a further loss; and therefore, in contravention of the rule not to tie an artery unless there is hæmorrhage actually at the time, I tied the brachial artery, adopting scrupulously the customary antiseptic precautions, and dressed the wound antiseptically. The vessel was secured with very little disturbance of the parts around it. The whole arm, forearm, and hand were now fixed upon a well-padded splint in order to insure perfect rest. The palmar wound was also covered with a light carbolised dressing. An abscess now formed here, and pointed at the root of the ring finger. On the 14th, about forty-eight hours after deligation, the wound

in the arm was found to be suppurating; the pus was very fetid, though the antiseptic dressing had not been disturbed. The incision was washed out with a solution of carbolic acid and again antiseptically dressed. Not till the fifth day could pulsation be felt in the radial and ulnar arteries above the wrist. Meanwhile a little fleshy-looking button rose up in the portion over the interspace between the third and fourth metacarpal, and two days later (March 19) it visibly pulsated—it was manifestly a miniature false aneurism. The day after, when the dressings were being changed, it broke, and blood spurted from it in a stream out of all proportion to the size of the little tumour. This was snipped open, and a thread placed above and below it on the small artery from which it arose. From this time there was no further cause for anxiety respecting the palm. The incision on the arm healed slowly; a sinus persisted obstinately over the point where the brachialis had been tied; and I often regretted that I had used a carbolised gut thread and cut it short instead of the old hempen ligature. The wound did not finally close till the middle of April, and even then much hardness remained.

This case, gentlemen, is an example of what too commonly happens in wounds of arteries in this situation. The wound is more often a puncture with a chisel or penknife, or some such small tool, than a gash. It bleeds furiously; the vessel cannot be seen; a compress is applied (often with greater tightness than necessary, and without the precaution of methodically bandaging the fingers and hand, and without securing their perfect immobility with a suitable splint); the bleeding at once ceases. The patient and the surgeon congratulate one another on the good progress of the case. Then, after a few days, blood bursts out, and the palm becomes swollen and infiltrated. The chances of now finding the vessel by enlarging the wound are greatly lessened, and the recurrence of hæmorrhage calls for ligature of the ulnar and radial artery (for it is seldom

that ligature of one alone suffices ; it has never been enough within my personal observation), or deligation of the brachial if preferred. In my early professional life, I several times saw my old teacher, the late Professor R. Partridge, tie the brachialis successfully for palmar wounds, and I adopted this practice myself three times with a favourable termination. Later I was led to prefer ligature of both ulnar and radial arteries just above the wrist, and the result in two cases was equally favourable, although, in consequence of extension of cellulitis from the hand into the forearm, the local conditions were less promising ; and now I find myself going back to my first practice. After both, I have seen, as here, occasionally a renewal of the bleeding, but it has been much moderated ; and, happily, I have not yet found it difficult to deal with, though the larger experience of others forbids me to believe that this will be always the case.—*Medical Times and Gazette*,

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Royal Medical and Chirurgical Society. C. J. B. WILLIAMS, M. D., F. R. S., President, in the Chair. Tuesday, November 24.

CASES OF SYPHILITIC REINFECTION, WITH REMARKS.

Mr. George G. Gascoyen read a paper on this subject, in which he gave the details of eleven cases of syphilitic reinfection which had passed under his observation, and seven of which he had himself treated in both attacks. Ten of them had previously had general syphilis, and in six of these constitutional symptoms again manifested themselves, while in the other four an indurated chancre only was the evidence of a second contamination. The remaining case was one of well-marked indurated chancre, with inguinal adenopathy for the first disease, but the reinfection showed itself as an indurated chancre followed by tertiary lesions without the intervention of any of the secondary affections. The importance of these cases was

dwelt upon as evidence that the diathesis created by syphilis may completely wear out and leave the individual free from all trace of his former attack, so that he may become the parent of healthy offspring, and also liable to contract again the disease if exposed to contagion. That examples of syphilitic reinfection cannot be so rare as is commonly supposed was proved by a table appended, in which sixty cases had been collected from various sources; and as in most of them, as well as in those which formed the subject of this communication, a full mercurial treatment had been employed, they were considered to afford strong testimony to the value of the drug, not only as a remedial, but actually as a curative agent in this disease. The author endeavored to show from these cases what is the real meaning of the induration which commonly accompanies an infecting chancre. He did not regard it as one of the strictly local processes attendant upon, or essential to, the development of such a sore, but as the first of the so-called secondry symptoms—the earliest expression of a constitutional contamination,—which usually manifests itsely at the point of inoculation, and which is as pathognomonic of a general taint as any of the affections admitted to be secondry. In most of the cases related the sore followed at once upon intercourse, and it was urged that a period ol incubation is by no means necessary to the evolution of an indurated chancre. Much difference of opinion existed on this point, and the author considered that the presence or absence of incubation is determined by the nature of the lesion from whence the chancre has been derived, whether from an infecting sore which is still suppurating and in full local activity, or whether from an indurated chancre which has become indolent and ceased to form pus, or from some other constitutional affection. In the former case, which was regarded as an example of primary syphilitic inoculation, no incubation preceded the pustular origin of the chancre;

but in the later, which constituted an example of secondary syphilitic inoculation, a period of inculation always preceded the papular development oi the resulting sore. And as the phenomena which have been observed to follow the inoculation of an indurated sore were precisely the same as those which attend the successful inoculation of mucous tubercles or of syhilitic blood in a person previously healthy, this fact was donsidered to afford an additional reason for placing a non-suppurating indurated chancre in the category of secondary syphilitic accidents. Some of these cases of reinfection threw light upon the position which the more remote lesions following upon syphilis really occupy with regard to the disease. Six of the cases rcorded (one of the present series and five given in the table) occurred in persons suffering at the same time from tertiary syphilis ; and it was sought from this circumstances to show that some of the more advanced symptoms must be the sequelæ of a past, and not the manifestations of a still existent disease. For since it was impossible to believe that two distinct attacks of general syphilis can take place in the same individual at the same time, these later manifestations, characterixed by cachexia, ulcerations, etc., due to the injury inflicted upon the economy by a previous disease ; and the fact that a fresh infection can take place under such eircumstances would seem to be convincing proof of the accuracy of such an assumption.

Mr. Henry Lee regarded Mr. Gascoyen's paper as a highly valuable one. His own experience entirely agreed with what Mr. Gascoyen had stated as to the reinoculability of syphilis on a person who had already had the disease. He was rather surprised to hear that there were so few cases in English literature. He thought that he had published two cases were reinfection had occurred. In cases of reinfection, the character of the sore differed from that produced in a previously healthy subject; it was small, and ran through its conrse quickly. The period of incuba-

tion was not so long as in an original sore ; and glands were not so definitely enlarged, and suppuration occurred. The secondary symptoms after reinfection were of the same character as those following original infection, but were milder, and yielded more readily to treatment. He could not draw a distinct line at the period at which a person having had syphilis could be said to be free from the disease ; the passing off of the influence took place gradually, like, for instance, that of vaccination. He had treated a patient for syphilis, followed by slight secondary eruption, and who, seventeen years afterwards, was reinfected. On the second occasion there was a small pimple, with enlarged and suppurating glands, followed lately by the development of well-defined copper-colored blotches. He had also seen a case where there was general enlargement and suppuration of the glands, and which was probably one of reinfection. According to Mr. Gascoyen, induration was essentially a constitutional symptom : hence, if there were no induration, there was no constitutional affection. The results of inoculation after reinfection did not seem to be the same as those of inoculation from a soft sore. He had lately seen some inoculations by Mr. Morgan, of Dublin, in which the cicatrix was raised rather than depressed.

Mr. Acton said that there was no doubt that reinfection could take place ; but he could not understand that this occurred so often as was stated. He had not seen more than ten or eleven cases. He was often called to cases of supposed reinfection ; but hardness, not necessarily the result of reinfection, might come on in the site of a primary sore years after the first infection. He had met with a case where a man, supposed to have recovered from syphilis for ten years, again presented symptoms of the disease. Such a case, according to Mr. Gascoyen, if induration were present, would be regarded as one of reinfection. It was an important practical observation, that in cases of reinfection the secondary symptoms were recovered from almost

with the mere use of tonics, without mercury. With regard to inoculation from secondary syphilis, he thought that it was a question of great difficulty. Persons having secondry symptoms cohabited for months without producing infection. He had seen attempts made to inoculate secondary syphilis ; but the process was a difficult one. It was said that it was very easy to prove that reinfection occurred frequently. Was he to understand that, in order to prove this, surgeons had undertaken the responsibility of inoculating healthy persons ? Unless this were done there was a want of data that could be depended on.

Dr. Drysdale had been long on the look-out for cases of reinfection ; but he had only met with one case, in which a gentleman, who had a primary sore followed by sore throat and eruption in 1862, having recovered, was reinfected in 1870. He did not think that induration was a sufficient sign for reinfection ; for tertiary induration might be mistaken for that of a primary sore, and he believed that many authors had probably made this mistake. He did not agree with Mr. Hutchinson's view that the tertiary symptoms were not really syphilitic. He thought that, to prove that two attacks of syphilis had occurred in the same person, it was necessary to show that there had been roseola on both occasions. Such writings as those of Mr. Gascoyen tended to shake the dualistic theory of syphilis, which he believed correct. He would ask Mr. Gascoyen whether syphilitic men ever begot syphilitic children without first infecting the mother. Inoculation from secondary manifestations had always resulted in syphilis. Infection had in some cases taken place by the mouth. Prostitutes must sometimes infect by secondary symptoms ; it was scarcely possible that there could be sufficient primary syphilis among them to account for all ths cases of infection.

Dr. Thin said that the influence of iodide of potassium in tertiary syphilis indicated that it was not merely due to the wearing down of the coustitution.

Mr. Trotter said that his experience in a regiment for twenty years confirmed the existence of reinfection. It had several times occurred that a man had a hard chancre, and recovered under treatment; and that, after remaining well for five, six or seven years, he became reinfected. In the interval he had been examined at the regular inspections, so that any sign of disease would have been detected. He was rather surprised that so few cases of the kind were recorded.

Mr. Myers had for fifteen years looked on reinfection as of common occurrence. He had also noticed cases where, after the healing of an indurated sore, induration was again produced by some irritation, without true infection; in one case this had occurred three times. He regarded induration as local rather than constitutional.

Mr. Gascoyen replied.

—*Medical Times and Gazette.*

Saccharated Calomel contains Corrosive Sublimate.

Dr. Polk, of Philadelphia, in the *Medical Times* calls attention to the fact that corrosive sublimate is developed when calomel is rubbed up with sugar. He administered ten grains a month after its preparation, with such poisonous effects as led him to test the compound, with the result as stated. He quotes from Vulpius, who says: "When calomel is mixed in powder with white sugar, or calcined magnesia, or bi-carbonate of soda, corrosive sublimate is formed in twenty-four hours. Rather large quantities are formed in powders composed of calomel, white sugar, and bi-carbonafe of soda." We believe it is the general opinion among practitioners that the increased activity of the saccharated calomel, which, by the way, is an old remedy, depends on the increase of surface caused by its diffusion. But the development of the chloride puts a serious face on the matter.—*The Doctor.*

MEDICINE.

On the Treatment of Tapeworm, with Illustrative Cases. By T. Spencer Cobbold, M.D., F.R.S., F.L.S., Lecturer on Parasitic Diseases at the Middlesex Hospital Medical College.

To any experimenter more or less frequently occupied with researches which have for their ultimate aim the practical advancement of the healing art, few circumstances are more calculated to afford discouragement than the apparent resultlessness of his labors. For a brief space of time the investigator may flatter himself that his discoveries or verifications, as the case may be, cannot fail to be immediately productive of benefit alike to his professional brethren and the public, but sooner or later he is sure to find out that his scientific enthusiasm has rendered him the victim of a very natural delusion.

If, to the essentially practical remarks that are to follow I prefix a statement of this nature, I do so partly in order that I may independently, and from recently gathered experiences, afford striking confirmation of its truth, and partly because I think such a statement inferentially offers an adequate apology for again recurring to a subject respecting which so many medical men fondly and, they must pardon me for saying it, erroneously, imagine that nothing more need be said.

Already in the pages of *The Lancet* for the current year (vol. i., 793), I have given a brief analysis of the experiences and results gathered from eighty consecutive and unselected cases of tapeworm occurring in private practice, and I have elsewhere offered an explicit statement of the principles which should guide us in the management of such cases. Now, considering that all of the patients concerned in these as well as in other cases that have come under my professional care had previously undergone treatment, I deem it not unfair to ask such a question as

the following :—" If the successful treatment of tapeworm be so simple a matter as some persons seem to think, how does it happen that many patients undergo years of drugging without being permanently cured?" Of course the answer is to the effect that the head of the worm had not been dislodged in any instance, and therefore the parasite continued to grow until it again arrived at maturity. Precisely so. I have admitted all along that there are cases of difficulty, particularly in the treatment of the armed pork-tapeworm, but it is just these obstinate cases which demonstrate the necessity for special knowledge and tact in their management.

Again, as affording proof of the truth of my opening statement, let any one not unfamiliar with our recent advances in experimental helminthology take the trouble to read the discussion on the treatment of tapeworm which took place at a meeting of the Société Thérapeutique on the 10th of June last. (*Bullet. Gén. de Thér.*) From a scientific point of view, the want of knowledge exhibited by several of the speakers is altogether lamentable. Thus, for example, one gentleman (M. Trasbot) actually asserts, or is represented as asserting, that the flesh of the ox "does not contain cysticerci," although for many years past we have recognized beef to be the most frequent source of tapeworm both in this and in several other countries. I may also state, for M. Trasbot's edification, that for many years past I have been in the habit of exhibiting beef and veal measles to scores of students and other persons interested in the matter. Not only so ; the experimental proof of the possibility of the occurrence of cysticerci in beef and veal dates back as far as the year 1861 (Leuckart *Die Meusch., Par.*. s. 406), whilst Mosler's limited experiences were announced shortly afterwards. My own much more extended verifications were first made known in *The Lancet* of Feb. 25th, 1865 ; being repeated in a more complete and emphatic manner in the same journal

during the following August. Subsequently, in the Pathological Society's Transactions and elsewhere (1866) further confirmatory researches were made public, some of these throwing light upon subsidiary questions in helminthology. Quite recently a French experimenter has at length accomplished a similar result. Professor St. Cyr, however, (like M. Trasbot) appears to have been totally unaware of the fact of the German and English experiments, although they were conducted ten or more years previously to his own. This evidence of defective information on the part of those who ought to have known better is, I repeat, exceedingly discouraging; and I wish I could bring myself to believe that such deficiencies were exclusively the prerogative of therapeutists and professional men on the other side of the Channel. Certainly, it ought to be generally known that the representative of helminthology in Paris, M. Davaine, cannot be held to blame on this score, since, in his recent article on the Cestodes in the *Dictionnaire Encyclopédique des Sciences Médicales*, he has given an admirable summary of Leuckart's and Mosler's researches, as well as of the experiments conducted by myself, with Professor Simond's co-operation, at the Royal Veterinary College.

Altogether ignoring, or at least failing to recognize, the practical value of these researches, it would appear that the method of treating tapeworm on the continent—as expounded by the members of the Society above referred to—is still made a matter either of mere drugging or of a mere choice of drugs. Thus one gives pumpkin-seeds, another pomegranate root-bark, a third male fern, a fourth kousso, and so on, *ad nauseam* in more senses than one. It is to be feared that a similar state of things prevails at home, In England turpentine is still perhaps the most popular remedy, at least in country districts. Unquestionably all these particular remedial agents have their value, some being more particularly useful than others. As to the amount of intellectual capacity requisite for the due

administration of either the one or the other, perhaps the less said about that the better. Certainly nothing effective can be done without drugs, and, whatever credit may be accorded to any medical practitioner, on the score of selection, the pharmaceutists ought, in my judgment, to receive the first thanks. With infinite care and trouble they have succeeded in giving us some very choice and convenient preparations, and I do not think they have received that share of the credit which is their due in this respect. But, I repeat, the successful treatment of tapeworm is not a mere matter of the choice of anthelmintics, neither is it necessarily dependent upon the degree of drugging. The pharmaceutists have executed their part of the business. so to speak, almost faultlessly ; but the practitioner's functions have for the most part been conducted in an incomplete manner, and therefore inefficiently to a greater extent than would otherwise have been the case. Without doubt, it would be unjust to maintain that perfect cures of tapeworm were rare ; nevertheless, I have before me absolute proof that, under the measures commonly employed, these cures are neither so frequent nor as rapid as they ought to be.

In my publication of the Lectures on Helminthology, delivered at the Medical College above mentioned, I have recorded upwards of forty cases of tapeworm. They were purposely unselected cases, in order to illustrate, not merely the comparative value of particular remedies, but also more particularly those points in the diagnosis, prognosis, and symptomatology which every physician ought to be familiar with. As in the present communication, I am chiefly concerned with the results of treatment (and especially as I have elsewhere, without the slightest reservation, and with little thanks from those I had hoped to assist, frankly pointed out the nature of the steps which I think all who have the management of such cases should adopt), I shall reduce my notes of these illustrative cases to the lowest possible limits. Some of the cases are simple enough, whilst others presented difficulties of their own.

CASE I.—L. E——, a little girl, only two years and three months of age, was placed under my care during the month of February of the present year, there being evidence to show that she had contracted tapeworm about nine months previously. She had been treated with fifteen-drop doses of the male-fern extract, on alternate days, for a period of several weeks during the previous autumn. She was alarmingly ill at the close of that period; and the treatment being for a time discontinued, the medical gentleman under whose care she had been thus far was unselfish enough to hand over the case to my care. The treatment had so far succeeded as to have expelled "several yards" of the worm. The parents were naturally very anxious; and therefore without stint they, like sensible people, afforded me every facility for bringing the case to a successful issue. I do not know that I have ever had to deal with a case of tapeworm presenting such peculiar difficulties. Not merely was it essential to avoid the exhibition of any remedy which could exert a drastic or lowering action on the system, but it was equally important that the parasite should be dislodged, head and all. The stupid plan of starvation so much in vogue abroad, as a preliminary step, was also obviously contra-indicated. In short, I was bound to proceed more cautiously. Accordingly, I recommended that the child should be treated in the country, and not in town, as I wanted her general health to be improved and maintained in comparative vigor. The diet and exercise were regulated. Gentle aperients were taken, the vermifuges commenced with being very small doses of kamala in the first instance and areca nut-powder afterwards; subsequently these were combined with advantage. And thus, without the slightest ill effect upon the child, a considerable part of the body of the worm was dislodged. Still, however, the upper part of the body, the neck, and the head had to be obtained. After a time I felt sure that a small dose of male fern could be borne, and therefore prescribed fifteen minims

of the extract, which had the effect of dislodging all except the head and a few of the upper neck segments. Confident that a second dose could be borne, after a brief interval this also was given, without any untoward result; and, on the 2nd of March I made my final fæcal exploration. This search was continued for one hour and twenty minutes, at the expiration of which time I succeeded in finding the *head*, which had scarcely any portion of neck attached. Curiously enough, also, this head displayed certain morphological peculiarities which I have not found to obtain in any other heads of the beef tapeworm (Tænia mediocanellata.) Its form was less truncated, the first neck-segment being as well pronounced as any of the immediately succeeding ones.

The lessons to be deduced from this case are important In the first place, it shows that success is not unattainable even in instances where the youngest children are afflicted with tapeworms. In the next place, it shows that there are examples of the disorder where it is better to proceed cautiously than to give the largest doses the patient can bear at once. Further, it shows that the male fern may be administered every other day for weeks in succession without bringing away the *head* of the parasite, and that the employment of this powerful drug may give rise to alarm, if not on the part of the practitioner, at all events to the patient's friends. It likewise shows that personal investigation of the fæces affords (to anyone familiar with the facts of tapeworm development and appearances) a true indication of the proper extent to which the treatment has been pushed. Thus, whilst many practitioners would have been contented to have discharged the case when they had learned that the entire body of the worm, or "several yards," had been dislodged, I, on the other hand, felt sure that the almost perfectly isolated head remained behind, and that a second dose of the extract could be borne without ill results to the patient. Had I been content to have

let the matter rest, the still attached head would undoubtedly have grown again, and some third person might have been entrusted with the case. We have seen, I repeat, that the very same drug, in doses just as large as those I eventually administered, proved ineffectual though continued for a lengthened period, the body of the parasite being dislodged, but not the *head*. Now, supposing the head had been expelled, since no special investigation was conducted with the view of ascertaining that fact, it is obvious that it would not have been known when the head actually made its escape; and thus, as often happens, the treatment would have been needlessly continued for a greater or less length of time. Patients have come to me who have been thus roughly handled for several years after the head of the tapeworm had been dislodged. In this case the treatment was not continued longer than was absolutely necessary. Some may contend that this accurate knowledge of the facts of these cases, whether negative or positive, is of no importance. I beg very respectfully to differ from these individuals some of whom have been pleased to favor me with probably the most discourteous anonymous communications that any honest laborer in the cause of practical science ever received. At the risk of receiving further discourtesy from a few eccentric individuals, I do not hesitate again to say that, to go on persistently drugging in total ignorance as to whether the head of the tapeworm is present or not, is, in my humble opinion, a slovenly mode of procedure; and even in instances where you do happen to know that the head actually remains intact, it is sometimes advisable to defer anthelmintic treatment. I hope in the sequel to explain this more fully. In the present case, I was certainly particularly fortunate in securing the co-operation of an unusually intelligent nurse, and thus not a single loose proglottid escaped per anum without subsequently undergoing the necessary scrutiny. But why scrutinize them at all? some unfriendly

hypercritic will say. To persons possessing such ill-adjusted mental processes I know it is useless to make reply. There are others, however, who set a different value on the lessons to be gathered from experience. Let me say, therefore, that it is within my personal knowledge that scores of different foreign bodies have been mistaken by unexperienced persons, both professional and otherwise, either for portions of the body of the tapeworm or for the head itself. I am constantly receiving such productions from medical friends for indentification or determination. All sorts of delusions afflict patients also in this respect; thus at the present moment I have under my care a gentleman who is persuaded he has seen the head of one worm which infested him, although the head is described as being larger than the sexually mature proglottid itself! Other patients have repeatedly, during my examinations, flattered themselves that they could pick out the head of the worm, but, with one exception, they abandoned the search in sheer weariness and disgust at their fruitless attempts.—*The Lancet.*

EXTIRPATION OF THE LARYNX.

This formidable operation was performed by Professor Billroth of Vienna, for the second time, on the 11th of November last. The patient was a man aged 50 who was under the charge of Dr. Schroeter the teacher of laryngoscopy at the Allgemein Krankenhaus. The laryngoscope revealed a nodulated growth, situated on the left vocal cord and implicating the mucous membrane. It was diagnosed to be epithelioma; it made very rapid progress, and soon engaged the whole interior of the larynx. The dyspnœa becoming urgent, the patient was transferred to Professor Billroth. That gentleman pronounced a favorable prognosis, in respect to the return of this disease, as there was no infiltration of the lymphatic glands in the neighborhood. He determined to remove the entire larynx, which

operation he performed in the presence of a large number of medical men and students. The patient progressed favorably for the first three days, when a change occurred, and he died on the night of the 16th, apparently from pneumonia. A microscopic examination of the growth confirmed the accuracy of the diagnosis.

Trichinæ in American Pork.

We are not aware whether the importation of hams from America into this country is large, but it appears probable, from the number sent over to Germany, that the English market must also receive a share. It ought therefore to be known that their use is not absolutely unattended with risk, and more especially in the case of hams which are cured with the residue of the cane sugar manufacture. Five per cent. of the latter kind, according to Dr. Roper (*German Quarterly Journal of Public Health*), who has carefully examined the subject, are infested with trichina spiralis. Only 3 per cent. of the hams cured in the ordinary way contain trichinæ. The reason why so many hams are thus diseased is probably due to the circumstance that in the place where the pigs were slaughtered the living pigs are fed with the offal of the dead ones, part of which were affected with trichinæ ; the consequence must be a steady increase in the number of infected animals. Roper, after a careful microscopic examination of the trichinæ from American hams, is positive that they are identical with those that have given rise to disease in Germany, the American opinion being that they are of a different and harmless species. He way, however, not been able to convince himself, either by microscopic examination or by feeding animals with the diseased flesh, that the American trichinaæ retain their vitality when they reach Europe. An epidemic of trichinosis which occurred at Bremen, in which more than twenty persons suffered after eating American pork, is, however, a sufficient proof that its use is not entirely free from danger. —*Medical Times and Gazette.*

CANADA

Medical and Surgical Journal.

MONTREAL, JANUARY, 1875.

IS THE MONTREAL GENERAL HOSPITAL A PROTESTANT INSTITUTION?

We have always maintained that the Montreal General Hospital is, in principle, non-sectarian. If any person is desirous of further information on this subject, let the published annual reports of the hospital be consulted.

Some time last spring a deputation of three gentlemen representing the corporation of the Montreal General Hospital waited upon the Premier of the Government of Quebec, with a view of obtaining, if possible, for hospital purposes only, a site of land known as Selby Grange. This property had been donated to the Government of Canada, specially for charitable purposes; and, at the time of the change to the present system of government, was handed over to the Local Legislature of the Province of Quebec. The desirability of this site was pointed out by the deputation, and in view of the rapid increase in the size of this city, the necessity for increased hospital accommodation was represented. Objections were raised on the part of the Government, the most prominent being, that inasmuch as the Montreal General Hospital was a Protestant institution, the Government did not feel disposed to make a grant of public land for its benefit without a like grant being given to the Roman Catholic Hospital. This appears on the face a perfectly equitable decision, but without wishing in any way to interfere with any prospective benefit to be granted

by our Local Legislature to the Roman Catholic institution, we will simply observe that the Montreal General Hospital is, in principle and management, non-sectarian. This institution, for the past fifty-three years, has performed its work of benevolence without reference to creed or country; and furthermore, although it is a City Hospital, supported by the voluntary contributions of the citizens of all creeds and countries, nevertheless in many instances its benefits are extended to persons coming from all parts, of Canada and the neighbouring States, as well as to immigrants and sailors.

In these days of bitter sectarian strife it would be a crime to rob this institution of its peculiar feature. The dispensing of charity to the sick and relief to the maimed should not partake of sectarian littleness.—Our Blessed Lord, in the suggestive parable of the Good Samaritan, which He addressed to the sectarians amongst the Jews of His day, teaches a lesson of love and benevolence to all men. This lesson can with advantage be learnt and put in practice by all, be they Christians or unbelievers. It is just this true spirit of Christian benevolence which has ever guided the management of the Montreal General Hospital. In support of our argument we will give a synopsis of the published annual reports of the Montreal General Hospital for the past ten years:

In 1865:

There were admitted into the house		1278
Of these there were:		
Roman Catholics	634	
Protestants	644	
Of out-door patients treated during the year		7294
Of these there were:		
Roman Catholics	5699	
Protestants	1595	

In 1866:

Admitted into the house		1117
Roman Catholics	550	
Protestants	567	
Of out-door patients treated during the year		7187
Roman Catholics	5640	
Protestants	1547	

In 1867 :

Admitted into the house..... 1223
Roman Catholics..... 553
Protestants..... 670
Of out-door patients treated during the year..... 7621
Roman Catholics..... 5843
Protestants..... 1778

In 1868 :

Admitted into the house..... 1313
Roman Catholics..... 638
Protestants..... 675
Of out-door patients treated during the year..... 8419
Roman Catholics..... 6717
Protestants..... 1702

In 1869 :

Admitted into the house..... 1406
Roman Catholics..... 648
Protestants..... 758
Of out-door patients treated during the year.....10,192
Roman Catholics..... 7845
Protestants..... 2347

In 1870 :

Admitted into the house..... 1281
Roman Catholics..... 636
Protestants..... 645
Of out-door patients treated during the year.....11,913
Roman Catholics..... 9830
Protestants..... 2083

In 1871 :

Admitted into the house..... 1,449
Roman Catholics..... 652
Protestants..... 797
Of out-door patients treated during the year.....11,346
Roman Catholics..... 8,860
Protestants..... 2,486

In 1872 :

Admitted into the house..... 1,479
Roman Catholics..... 669
Protestants..... 810
Of out-door patients treated during the year.....11,116
Roman Catholics..... 8,647
Protestants..... 1,469

In 1873 :

Admitted into the house..... 1,714
Roman Catholics..... 743
Protestants..... 971
Of out-door patients treated during the year.....11,349
Roman Catholics..... 8,882
Protestants..... 2,467

In 1874 :

Admitted into the house	1,781
Roman Catholics	827
Protestants	954
Of out-door patients treated during the year	13,137
Roman Catholics	10,603
Protestants	2,534

In publishing these statistics our sole desire is to show that the Montreal General Hospital is neither a Roman Catholic nor a Protestant Hospital. We firmly believe that the best interests of the institution would seriously suffer if its management partook of sectarianism of any kind. Nor do we wish it to be supposed, that in giving publicity to this statement, we desire to curtail one inch of ground that the Government of this Province deem advisable to give to the Roman Catholic Hospital. Still, we maintain that in giving aid towards this charity the Government will not be giving support to a Protestant Institution. It cannot be denied that the larger number of the governing body of the Montreal General Hospital belong to some Protestant denomination, but it must be stated that a large number of Roman Catholics give of their substance annually towards its support.

By reference to the statistics above quoted, it will be noticed that during the past ten years there have been treated in the aggregate 85,116 Roman Catholics against 28,499 Protestants. And if the reports are more closely scrutinized it will be seen that the patients are made up of natives from every country in Europe, as also from many of the countries of Asia, Africa and America.

THE MONTREAL GENERAL HOSPITAL.

Eight years ago, in the pages of the CANADA MEDICAL JOURNAL appeared an editorial on the subject of the removal of the Montreal General Hospital from its present site to one further west. Furthermore, we advised the Governors of the institution of that day to acquire property in the vicinity of the plateau overhanging the Tan-

neries village, of sufficient extent to enable them to put up a series of buildings after the style of some of the modern hospitals in other countries. Mr. William Molson about that time had presented the institution with a sum of $5,000, specially intended to aid in the erection of a fever hospital. In alluding to the building of a fever hospital, we remarked "that while fully alive to the necessity of an institution with the above object, we must be permitted to call in question the propriety of building a fever hospital on the ground at present owned by the institution." We did our best to oppose the erection of the fever hospital on its present site, and the results have fully borne out the note of warning which we at that day sounded.

In providing charities of this nature for the poor or the man with limited means, it is not alone sufficient to give him a place where he can have his bed, board and medical or surgical relief during an attack of illness or after the receipt of bodily injury; but, with the increased light thrown upon this subject by sanitary science, or, as it has been termed, preventive medicine, the hospital inmate should be placed under the most favorable circumstances for rapid restoration to health and strength. How grateful to the sick man is the release from his sick chamber! The monotony of living in, eating, drinking, suffering and attending to the calls of nature in a sick room is sufficiently irksome whilst change would be imprudent; it becomes doubly so to the convalescent if this same routine has to be followed, and in consequence his recovery is retarded.

These observations are made in view of certain changes which it is proposed to carry out in our hospital buildings. We should be glad to see a change, but not the change which is contemplated. In the first place, the site of the Montreal General Hospital is not the most favorable; still if an increased area of land can be obtained it would answer the purpose very well. It is very questionable whether property in the vicinity of the

hospital can be obtained at anything like a reasonable price, and again whether a much larger lot of ground might not be purchased than that at present owned by the corporation of the hospital for the price which will have to be paid for the land which it is contemplated to secure.

We observe in the evidence of some of the witnesses before the Committee to investigate into the nature of what has been termed the Tanneries land scandal, that they are reported to have said that the Tanneries property was admirably adapted for hospital purposes. There can be no two opinions on this point, and we think it a matter of regret that this property, which we understand was given to the Government of Canada for the purpose of erecting thereon a charitable institution, should in the end be diverted from the conditions of the gift of its donor and pass into the hands of a ring of land speculators. It appears to us that it was never contemplated by the donor of that parcel of land that the Quebec Government should make out of that land, by its sale, 100,000 coppers, much less that amount in dollars, and we should imagine that the heirs of the donor of that property could, in equity, reassume the land, since the Government do not want it and, in the most disinterested manner possible, desire to get rid of it for a consideration, which of course must go into the public chest. There is a lack of straightforward honesty about the whole affair which is very discreditable to all concerned. These remarks are made merely in connection with the subject of our hospital site. We are no politician, and do not desire to enter into the question of what was right or what was wrong in the matter of the Tanneries land scandal; moreover, in the present incomplete state of the investigation, no man is qualified to give any opinion touching this transaction, with the exception that the quibbling and apparent lack of honesty on the part of some of the witnesses is very pitiful.

It is much to be regretted that the land above referred to

known as Selby Grange, which came into the possession of the Quebec Government at the time of the division of the Provinces, was not reserved for charitable purposes exclusively. It is admirably situated for a hospital, being near the present site of most of our factories and Grand Trunk works, and sufficiently near the city for all practical purposes, having a tramway leading directly to it, and besides, in view of the contemplated building of a Western Hospital, there would be space enough to put up two buildings, or more if necessary. We are decidedly opposed to placing buildings of this nature in a cramped space; large and airy grounds should surround all hospitals, but more especially is this necessary for surgical patients. The success of all surgical operations depends in a great measure on the sanitary surroundings of the persons operated upon. No one can speak with greater earnestness than the writer on this subject, and he is forced to admit that the usefulness of the Montreal General Hospital as a surgical hospital has been greatly damaged by the several additions to the buildings of that institution which have been erected during the past six years.

Before proceeding to make the contemplated changes on the present locality we would earnestly request the governing body to consider the propriety of a change of site, and in undertaking this enterprise to secure sufficient space whereon to erect a hospital which would be worthy of the name, and be a lasting memorial of the benevolence and Christian charity of the people of Montreal.

ELIXIR FERRI ET CALCIS PHOSPHATIS CO.

Dr. T. B. Wheeler of this city has for some years past devoted his time and energy in giving to the public an exceedingly elegant preparation of the Lacto-phosphates of Iron and Lime combined with the alkaloids of Calisaya bark, after the formula of Dr. Dusart of Paris. Each half ounce of his Compound Elixir contains two grains of the Lacto-phosphate of Lime, one grain of the Lacto-phosphate of Iron, and one grain of the Alkaloids Quinine, Quinidine and Cinchonine, together with free Phosphoric acid. It is a preparation of great reliability, inasmuch as it is prepared with great care and under the direct supervision of the Doctor himself, who takes every precaution to maintain his preparation at a standard strength. This preparation must not be confounded with the various patented remedie of a somewhat similar character which are to be found in every drug store, the quality of which are doubtful, and which are generally made up for sale, without reference to any possible benefit that may follow their use. Dr. Wheeler's preparation is an agreeable tonic, and we believe it to be a valuable remedy in suitable cases. We call the attention of our readers to his advertisement to be found elsewhere.

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Depressed Fracture of the Vault of the Skull in a Child of Five Years, Recovery. By GEORGE E. FENWICK, M.D., Professor of Clinical Surgery, McGill University.

On the evening of the 1st January, I was requested to visit a little child who had met with a severe accident resulting in a simple depressed fracture of the vault of the cranium. The history I learnt was as follows: while playing about in a large upper room in one of the wholesale warehouses in this city the little fellow wandered inside of a sky-light, broke through the glass and fell to the plank floor beneath, a distance of some sixteen feet. The accident was not observed, but his father, who was in the next room, hearing him cry, went to his assistance; when found, he was lying on his right side, was whining, seemed to be partially conscious, could give no account of himself, there was no external wound but the child appeared stunned and confused, the accident occurred shortly after mid-day, the child was taken home and as he appeared inclined to sleep he was put to bed and kept quiet. Before being put to bed he walked across the floor of the room complained that his head was sore, recognised those around him, seemed desirous of being left quiet, vomited twice, and subsequently fell asleep, it was a restless sleep as he would start and moan but did not awake, between three and four hours after the accident he was seized with a convulsion which continued

for some time. Before the family physician, who had been sent for, saw him he had had several convulsive attacks, when seen that gentlemen readily made out depressed fracture of the skull, and at the same time requested that I should be called in. I saw the child shortly before six o'clock the same evening and the following was the condition observed. There was marked facial paralysis of the right side the mouth being drawn over to the left, there was insensibility, the pupils of both eyes were dilated and insensible to light, the pulse was comparatively slow being 80 per minute, the right arm and leg were motionless, in flexing or extending either limb the muscles would be thrown into spasm and yield with a jerk. The left arm and leg were in constant motion, respiration was performed without difficulty but was accompanied by a sigh with each expiration. On examining the head he would raise his left hand up to the part as though semi-conscious. The scalp was puffy and tumid, there appeared to be a considerable quantity of blood effused beneath, from the position of the child, lying on his back, this blood had gravitated towards the occiput leaving the anterior part of the skull comparatively free, which enabled me to make out distinctly a depressed fracture situated on the right side a little below the mesian line and close to the anterior superior angle of the right parietal bone. The depressed fragment was below the surface fully the eighth of an inch, a sharp ridge could be felt indicating the point of fracture, which was in extent from an inch and a half to two inches. From the symptoms above described we feared some more serious lesion than the fracture. We determined to delay all operative interference and simply enjoin perfect quiet with the application of ice to the scalp.

Instructions were given to administer an enema of soap and water, or salt and water in the morning should the bowels not act. The family physician requested me to assume charge of the case to which I consented, and we agreed to meet on the following morning at 10½ o'clock. I saw the child again that night about 11, he was then perfectly quiet,

all moaning and movements of his limbs had ceased, he was sleeping calmly, the pupil of the eye was less dilated and acted slowly to the stimulus of light, the pulse was accelerated being about 110. Cold to the head was kept up all night, towards morning the bowels acted involuntarily twice and he passed water, he became more sensible and would move his head away from the ice bag. At the hour of visit he knew his parents and those about him, could move all his limbs, the distortion of the features had ceased, he was however very quiet, disinclined to move and I noticed a discoloured point in the under lid of the right eye. The cold to the head was maintained and gruel and milk was ordered as it was said he would take it without difficulty. He was to be kept in bed and absolute quiet enjoined. At the evening visit he knew me, put out his hand, smiled and appeared quite sensible. My attention was drawn to a subconjunctival ecchymosed spot which was attributed by the nurse to cold from the application of the ice to the scalp. It was not very extensive and was situated on the outside of the right eye.

On the second morning after the accident I learned at the hour of visit that he had passed a good night, had slept quietly, there was no return of the convulsions, the bowels had acted; when I entered the room he rolled over on to his hands and knees and then wheeled round into the sitting posture, there was considerable stiffness about the neck, the head was advanced and he could not raise his chin or bend his head backwards, when told to look up he would arch his body backwards but maintain steadily the fixed position of his head. The ecchymosed condition of the lower lid of the right eye and the subconjunctival effusion had somewhat increased. His pulse was about 90, he took nourishment but although he complained of hunger his food was restricted. On the third morning I learned that after passing a quiet night, he got out of bed and crept into the corner of the room and was found there by the nurse, quietly amusing himself. From this date he steadily improved the bone appeared to

be rising out of its unnatural position, at the present time the depression is scarcely appreciable, the tumefaction of the scalp entirely disappeared; several days after the accident upon carefully inspecting the head the fragments of bone appeared to be loose, but as this examination gave pain I desisted.

This case presents many points of interest to the surgeon, and practically it illustrates the facts that in depressed fracture of the skull in children we should not be too hasty in resorting to operative measures, and again that in some cases of most serious injury in childhood involving the brain recovery will in the majority of instances be the result. In this case there was found irritation of the brain presumably from depressed fracture of the vault of the cranium. Why then, it may be asked, delay following the usual surgical rule of removing the cause of irritation by elevating the depressed bone. It must be observed that it was a case of simple fracture and converting a simple into a compound, fracture ought not to be lightly undertaken; surgical writers lay particular stress on this point, nevertheless it must be conceeded that in any given case a simple depressed fracture of the skull would demand imperative operative interference, if no chance existed of benefit from delay and auxiliary means—the well known tolerance of children to severe injuries of the head should always be remembered although disease attacking the brain in childhood is always serious if not generally fatal. Children appear to possess wonderful accommodation which is specially marked in injuries about the head. Their powers of repair are more active than in adult life, hence an injury that would be fatal to an adult will be frequently recovered from in childhood.

In fractures of the skull in children when the fragments are separated, or when there is a state of comminution or where a fragment is depressed there is less likelihood of its becoming impacted, this appears to me to be due to the absence of diploë, the entire thickness of the bones of the skull of a child is not much greater, if as great, as one of the

tables of the adult bone, hence the fracture of both tables is simultaneous it is the same difference as will be observed in cracking an inch board and a thin veneer,in the first instance the edges of the fissure on both sides will not correspond, and hence if displacement takes place they become locked. In the other the fissure on both sides will correspond, or nearly so, so that they rarely become impacted. Whatever may be the rationale of these injuries in children certain it is that in many cases of depressed fracture of the skull the bone will in due time be forced out and made to assume almost, if not entirely, its original position.

The prominent symptoms in this case were eccentric. There existed fracture with depression on the right side of the vault of the skull, there was right facial paralysis, paralysis of the right leg and arm and constant movements of the left extremities, from this it was reasonable to infer some more serious lesion than the depressed fracture described, a condition which was not going to be relieved by the formidable operation of elevating the bone at the point depressed. In falls from a height on to the top of the head resulting in fracture of the vault of the skull, it has been noticed in many instances that the fracture has extended through the base of the cranium. Dr. Arran, as mentioned by Mr. Bryant in his practice of Surgery, "found that the part of the vault which first struck the ground gave as it were the key to the fracture which would take place at the base," thus if the front part of the vault was injured, and the fracture continued into the base it would be found in the anterior fossa. If the centre of the vault was the injured point and if fracture of the base occurred it would be found in the middle fossa and if the posterior part of the vault was injured the posterior fossa would suffer.

In the case under consideration we had a depressed fracture at or near the junction of the anterior and middle portion of the vault of the skull, and it is quite possible that the injury had extended into the anterior or middle fossa of

the base. This supposition receives confirmation when we consider the ecchymosed condition of the right eye, both sub-conjunctival and into the cellular tissue of the lid. I can scarcely believe that the injury of the base was extensive, but it was sufficient to give rise to the train of symptoms already alluded to, which were those of irritation at the base of the brain, on the side opposite to that on which existed the depressed fracture of the vault. Practically this case is of importance, as illustrating the expediency of not too hurriedly resorting to surgical interference, more especially in cases of injury to children. I cannot do better than conclude this paper with the very practical remarks of Mr. Timothy Holmes, taken from his work on the surgery of diseases of children. In speaking of fractures of the skull, he remarks: "Many instances are on record of recovery after very formidable compound fractures, involving the loss of large portions of the surface of the brain, and simple fractures if not complicated with lesion of the centre or base of the brain, generally do well. The tendency being in most cases to natural recovery. * * Few cases, I think which will not recover under rest and cold application to the head, will do any better under more active treatment, and it is very rarely indeed that trephining is required."

24 Beaver Hall, February, 1875.

Case of Ovarian Cyst, pointing in the Perineum. By H. P. Wright, M.D., Ottawa.

The following case being somewhat unique in several of its features will probably prove interesting to the readers of the Canada Medical and Surgical Journal:

Mrs. B., æt. about 50, widow, mother of seven children, all living, has suffered for more than eight years from dropsy of the left ovary. The progress of the disease has been remarkably slow and accompanied, at intervals, by a good deal of inflammatory pain. Shortly after she had first

noticed the "lump" in her side, she began to complain of, what she supposed to be, falling of the womb, which increased in a corresponding ratio to the ovarian disease until it appeared externally, when she became sufficiently anxious to consult a medical adviser, who considered it a case of "inversion of the uterus."

I first saw her a year and a half ago, when she measured 40 inches round the abdomen at the umbilicus, and the vaginal tumor appeared externally about the size of an ordinary orange, presenting a smooth surface, elastic, and very tense. It could be easily replaced when in the recumbent position and retained by a ball pessary. This, however, had soon to be removed, as it gave rise to pain and frequent micturition. By vaginal examination the uterus was found to be in good condition—hardly any displacement. The relations were perfect in front, but I could not pass the finger round the os behind. The feeling was as if the uterus had been doubled over on itself backwards.

No relief could be given and matters kept getting worse, the abdomen increasing in circumference and the vaginal tumor enlarging—the latter becoming so troublesome as to interfere with her walking, and from the constant friction large patches of ulceration made their appearance.

I did not again see her for about four months. The tumor had now attained the size and appearance of a prolapsed and distended bladder; indeed, from a careless examination one might easily conclude that such was the case. There was evidently fluid in the tumor, and in consultation with Dr. Laing, I tapped it and drew off over eight ounces of thin serum. This operation was repeated every week, as it relieved the dyspnoea from which she suffered severely. She lived but a short time after the tapping commenced;—it was but a "*dernier ressort*" to ease her sufferings as death approached. All doubt as to the nature of the tumor was removed by the tapping. The fluid pressure had pushed the recto-uterine fold of peritoneum directly downwards, separating the rectum and vagina, and finally protruding externally to such a degree as to render her utterly miserable.

No autopsy could be obtained.

Correspondence.

Montreal, Jan. 28, 1875.

Editor Canada Medical and Surgical Journal.

As Monobromated Camphor is being prescribed by the profession just now, and as no account of it is found in the text books, perhaps the following items may be interesting to your readers :—

Monobromated Camphor is formed by the combination of Bromine and Camphor at a temperature of 212° Fahrenheit or over, in a retort so arranged, that the products volatilized may be condensed and flow back ; subsequent crystallization, &c.

It occurs in white or colorless prisms, also in long flat prisms perfectly transparent and hard, and sometimes in scales, according to the solution from which it is crystallized.

It is perfectly insoluble in water, but readily and freely soluble in alcohol, ether and chloroform. It is permanent in air, not affected by light, and tastes very much like ordinary Camphor.

The dose usually employed is two grains, which should be given in the pilular form.

Probably 1 grain in each pill, with extract gentian, or extract licorice as an excipient, would be the best and most scientific way of administering the drug. It might also be given in powder taken dry on the tongue. Being perfectly insoluble it should never be given in the form of mixture.

I have frequently seen bottles, brought to have the mixture repeated, with at least 8 or 10 grains of the salt adhering to the sides.

Very truly yours

HENRY R. GRAY.

HOSPITAL REPORTS.

Thoracic Aneurism.—Death—Autopsy.—Under the care of Dr. Wright.—Reported by Mr. George C. Duncan.

J. B., aged 36 years, a strong well-built man, was admitted into the Montreal General Hospital, October 17th, 1874, under the care of Dr. Wright. The patient has served in the Artillery, in India, and while there had "jungle fever," from which he made a tedious recovery. He has never had any other serious illness, but he has been in the habit of taking intoxicating liquors freely. For the past six years he has been in the employ of the Grand Trunk Railway, in Montreal, and has had a good deal of heavy lifting to do. For some months past he has experienced what he supposed to be "rheumatic" pains in his right shoulder and chest, but no other serious symptoms. About eighteen months before his admission he was lifting an iron rail, and felt something give way in the upper and right side of his chest. After saying that he would go home, he turned round, but after walking three or four paces, he fainted and fell to the ground. When his companions reached him he was black in the face, and appeared to them to be in a fit. After loosening his clothes and applying whiskey and water to his head and face, he recovered consciousness, and soon appeared so much better that he insisted on walking home. This, however, he was unable to do, and he was accordingly taken home in a cab by a fellow workman.

After he recovered consciousness he began to vomit, as soon as he attempted to rise and walk, and the vomiting continued almost incessantly during the night. On the following morning, after taking some brandy, it stopped, and during the early part of the day he got up and dressed himself, but complained of feeling weak. On his return to

work, about a week afterwards, his fellow workmen noticed that his voice was husky and weaker than formerly, and also that he frequently stretched his right arm over his head, to relieve the cramp, as he said. During the dinner hour also he used to rub his right shoulder with coal oil and other remedies. When he had any heavy weight to lift he complained so much of his shoulder that his comrades nicknamed him "Shirking Jack." From this time until his admission he did not work very steadily, and was supposed by the other men to be drinking hard.

Condition on Admission.

There is an elevation in the right infra-clavicular region, and considerable bulging above the clavicle. The veins of the right side are enlarged, and there is œdema of the right arm.

On percussion, distinct circumscribed dullness is apparent over the left side and upper end of the sternum, extending to the right as far as the middle of the clavicle.

The stethoscope reveals a distinct bruit and thrill over the tumour. The heart sounds are muffled and indistinct, and the respiration is loud and sonorous.

The patient complains much of pain in his chest, and there is considerable dyspnœa and severe cough, which interrupts his sleep. He is obliged to have his head and shoulders raised, in order to relieve to some extent the dyspnœa.

Treatment.—He was ordered good nourishing diet, and the following mixture :

R. Potass. Iodid.
Tinct. Lobeliæ, aa 3ii.
Mist. Pect. Chron. ad oz. viii.
Sig : Tablespoonful three times a day.

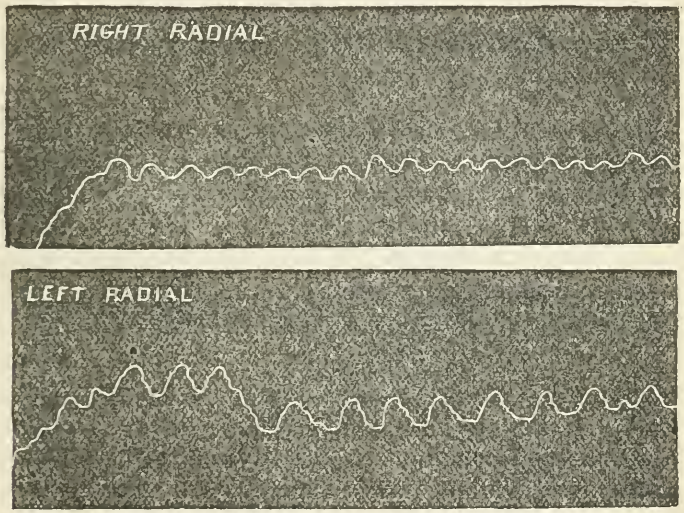
After taking the mixture for a few days, he was to some extent relieved from the pain and cough ; the bruit, also, was not so distinct.

November 6th.—Not so well to-day ; the voice is more

husky, and the paroxysms of coughing are very distressing, and seem to prostrate him very much.

November 15th.—To-day he is sitting up in bed, being unable to lie down on account of the dyspnœa, even for a few minutes. The cough is almost incessant, and large quantities of tenacious phlegm are expectorated. The radial pulse differs in the two arms, both in volume and rhythm.

November 30th.—Condition much the same. He is dizzy when he attempts to stand, and there is some dysphagia. The pressure of anything tight about his neck is not endurable, and even the pressure of the stethoscope causes such violent coughing that no satisfactory examination can be made. The pulse remains much the same, and on applying the sphygmograph, I obtained the following tracings :—



December 2nd.—Condition much the same, but he appears rather weaker.

December 5th.—Patient died last evening. He had been walking about the ward during the day, and in the evening, he asked to be helped across the room to a chair at his

bedside, on reaching which he took a few long breaths, and falling over on one side, he died without a struggle.

Autopsy.—A large double sacculated aneurism was discovered on the innominate artery, involving the superior border of the arch of the aorta, between the origins of the innominate aud left common carotid arteries. The tumour extended above the upper end of the sternum and inner extremity of the clavicle, to both of which it was firmly adherent. A large mass of dense tissue and fat, which also enveloped the left carotid artery for about two inches and a half, surrounded the anerismal tumour, to which it was firmly adherent, and from which it was with difficulty separated. The clavicle was dislocated forwards at its sternal extremity. No rupture of the sac, which was filled with fibrinous laminæ, could be found.

Case of Cerebral Aneurism—Softening of the brain—Death from Hæmorrhage. Under the care of Dr. Ross. Reported by Mr. Dorland.

M. W., aged 53, was admitted into the Montreal General Hospital on the 29 December 1874 complaining of headache and debility. She is of thin spare habit and unhealthy appearance. When questioned as to her symptoms it was found that she had suffered for some time from severe pain in the head which apparently had no special locality. She then immediately of her own accord commenced to give a long, rambling and incoherent account of a series of adventures in which she had, she said, taken part, and which were entirely irrelevant to her case. Whenever any questions were put to her she would thus in the same way wander off to something entirely foreign to the subject. She however gave correctly the number of the house and name of the street where she lived. Beyond this it was impossible to learn anything of the history of her illness up to the present time. Three days after her admission she had a slight epileptiform convulsion followed by a lengthened condition

of drowsiness. Following this at intervals during the next 48 hours there occurred four such seizures each of them slight, accompanied by but little spasm or lividity of the face, and during the intervals she appeared to be increasingly obtuse and drowsy. She could, however, be easily roused for the moment, by a question, to a degree of semi-consciousness. When left alone she continued talking quietly in an incoherent manner. Ordered Ammon Bromid gr xv every four hours in mixture—and Tinct Iodi to nape of neck.

Jan. 7th.—No return of convulsions. Is still quite delirious and could not for some time recognise her son who called to see her, but is sensible enough to ask for assistance to attend to the calls of nature. Bowels costive, respiration irregular, and headache still complained of when roused. *Ordered* Black Draught.

Jan. 8th.—Examined urine to-day and found about 10 per cent of albumen. A few light granular casts, numerous blood-disks and some debris were discovered by the microscope.

Jan. 9th.—Is very weak to-day but seems rather more rational and recognises her sons but cannot call them by name.

13th Jan.—Since last report has remained much the same. When left alone, she lies in a dull, stupid condition, making no complaint and asking for nothing. When spoken to, assumes a peculiar sickly and silly smile and answers in a foolish manner. She takes singular fancies into her head, for instance concerning her food, when sufficiently aroused to understand a question suggesting change of diet, she will answer for a day at a time in exactly the same words asking for some special article. When somewhat excited by the daily physician's visit she talks more and in a silly meaningless fashion and often smiles as above mentioned, at her own remarks. Urine remains albuminous. Microscopcial examination same as before. Both pupils somewhat dilated.

25*th Jan.*—Has been daily becoming more insensible. By loud talking or shaking can now only be roused sufficiently to give some slight sign of perception. When undisturbed, lies quietly unconscious. No stertor. To-day for the first time, although repeated examinations have been made, is evidence found of the existence of paralysis, the right arm feels quite flaccid when raised and the right eye does not close when touched. There is retention of urine for which the catheter is used and the fæces are passed involuntarily.

21*st Jan.*—Profound insensibility, inability to swallow, Paralysis of right side, slight muscular twitchings in the left arm, pulse failing rapidly.

22*nd Jan.*—Died at 1 p.m.

Post Mortem 24 hours after death. *Brain*—slight serous effusion in the sub-arachnoidean space. General fullness of the veins on the surface. A small bony plate about the size of the little finger nail was found under the pia mater and attached to one of the convolutions of the left hemisphere of the Cerebrum near the Parietal foramen. It did not seem to cause any disturbance in the part. It was smooth externally and marked by the convolution internally Arachnoid at the base healthy. Walls of the arteries at the base thick and atheromatous. All the ventricles healthy, Cerebellum normal.

A small sacculated aneurism about the size of a hazel nut was found situated on the left internal carotid artery just at the commencement of the fissure of Sylvius where it divides into its terminal branches. On slitting up the vessel the aperture to the sac was discovered, oval in shape about 1 line in length by 1½ line in width. The sac was completely filled with a firm decolorized fibrinous clot. From the delicacy and thinness of the walls of the vessel it could not be made out how many of the coats composed the sac. The coats of the vessel were atheromatous and patchy in the neighbourhood of the aneurism. The vessel was pervious under the sac, though it may have been compressed somewhat

by the pressure of the tumor. The tumor itself probably produced no symptoms during life. In the course of the middle cerebral artery along the fissure of Sylvius there was a soft black clot of recently effused blood. The cerebral substance was beneath this reduced to a soft reddish pulp over a space the size of a half dollar and extending to the depth of about one line. The blood had been probably effused gradually, corresponding to the gradual devel. opment of the symptoms of compression during life.

Heart.—An unusual deposit of fat on the heart and pericardium. Valves healthy except a large atheromatous patch on the upper segment of the mitral. Large white ante mortem clot in the right heart.

Lungs.—Lower lobes collapsed. Congestion of the substance of both lungs. Puckering at the apex.

Liver.—Rather small but healthy.

Spleen.—Normal.

Kidneys.—Natural size. Surface of the capsule smooth and non-adherent, section shows marked congestion of the pyramids. No thinning of the cortical portion. Surface of the organs not granular, weight ℥ vi.

Case of Pleurisy with effusion—Tapping—improvement

Under the care of Dr. Drake. Reported by Mr. T. G. Hockridge.

I. T., a French Canadian, aged 27 years, a storeman by occupation, was admitted to the general wards of the Montreal General Hospital, May 6th, 1873, under the care of Dr. Drake. Previous to his admission he had suffered for two or three weeks from chills, headache, fever and considerable dyspnœa, which increased very much when he attempted to lie upon the left side. Although he suffered a good deal, he was not confined to bed, but merely remained in the house. On admission, a physical examination revealed marked fullness in the left infra-clavicular region, with depression of the left clavicle and shoulder; measurement round the left side of the chest ¾ of an inch greater

than that of the right ; marked dullness over the left lung both in front and behind, the dullness extending about 3¼ inches to the right of the median line of the sternum. The apex beat of the heart was visible over the ensiform cartilage. Respiratory murmur intensified over the unaffected side. He was prescribed the following, three times a day.

℞

Potass. Iodid. gr. x
Potass. Acetat. gr. xx
Tinct. Cinchon ℥iss

Over the left lung he was ordered a fly blister, the skin to be subsequently dressed with Ung. Hydrarg dil.

May 8th.—Pulse 120, weak and irregular ; Temperature 102 4-5 ; Respiration 36. He was ordered the following pill to be taken three times a day :

℞

Pil Hydrarg gr. i
Pulv Scillæ gr. ii
Pulv Digital gr. ss. Ft. pil.

May 9th.—Pulse 120, very irregular and also intermittent ; Temperature 103° ; Respiration 36 ; He was ordered a pint of beef tea and two ounces of wine.

May 10th.—Pulse 123, weak and irregular ; Temperature 103° ; Respirations 36 ; On measurement, the left side was found to have increased ½ an inch, and the dullness had extended ¾ of an inch further to the right side of the sternum, Dr. Drake made an exploratory puncture at the posterior base of the left lung and drew off about an ounce of highly albuminous fluid.

May 12th.—Pulse and temperature remain the same. No albumen in the urine ; No dyspnœa or pain ; Dr. Drake tapped the chest with Dieulafoy's aspirator and drew off 7½ pints of fluid ; the last two ounces drawn off contained a small quantity of blood. Immediately after the operation the dullness was considerably diminished both in front and behind, the heart resumed its normal position and a good pulmonary note could be elicited ¾ of an inch to the left of

the sternum. On measuring the chest the left side was found to measure an inch less than the right. A slip of adhesive plaister was placed over the aperture caused by the aspirator, and a light flannel bandage applied round the chest. During the operation the patient coughed severely and the cough continued troublesome for the rest of the day. The mixture and pills were stopped, and a draught of Tinct. Opii and Chloric Ether ordered at bed-time. He was allowed ice to allay the cough.

May 13th.—Pulse 124; Temperature 103 3-5 ; Respiration 36 ; Cough less frequent ; Slight diarrhœa ; No pain in chest, vocal resonance and vocal fremitus absent over the affected side, expansion of the left side improved and also the percussion note is clearer.

May 14th,—Pulse 120, Temperature 103 3-5 ; Respirations 32 ; not much cough, much heat of skin, dullness diminishing.

He was ordered ℞

Tr. Ferri Perchlor	℥iii
Potass Acetat	℥iv
Ac Acetic	℥i
Aquæ ad	ℨvi

A tablespoonful every four hours.

May 15th.--Pulse 120 ; Temperature 103 ; Respirations 30 ; Does not feel so well ; felt pain through the night over the left lung, and turpentine stupes were applied, which relieved him. The mixture of yesterday was changed to

℞ Tinct Ferri Perchlor	℥iii
Potass. Acetat	℥iv
Acid Acetic	g. s.
Infus Digitalis	ℨiii
Aquæ ad	vi

A tablespoonful three times a day.

8 p.m. Pulse 112 ; Temperature 104¾ ; Respirations 30. Skin hot, diarrhœa has ceased.

May 17th.—10 a.m. Pulse 96 ; Temperature 100 4-5 ; Respirations 30. Passed a good night, slight dullness over

the left lung both in front and behind, respiratory murmur audible all over the left lung, but weak. A few moist rales at the apex, and fine crepitation at the base. The left lung was painted with tinct of iodine and covered with cotton wadding and oiled silk. 10 p.m. Pulse 112 ; Temperature 103 4-5 ; Respirations 36 ; Patient easy and comfortable.

May 18th.—10 a.m. Pulse 112 ; Temperature 99 ; Respiration 36. He complained of pain in the right side, and he was given morph. gr ¼ hypodermically.

May 19th.—10 a.m. Pulse 115 ; Temperature 102 1-5 ; Respirations 36. The left side of the chest was found to be still an inch less in measurement than the right. 10 p.m. Pulse 112 Temperature 103 ; Respirations 31.

May 20th.—10 a.m. Pulse 112 ; Temperature 102 1-5 ; Respirations 30. Moist rales all over the posterior part of the left lung, loudest at the base, heard also in front at the apex. Pain over the left lung, for which he had morph gr ¼ hypodermically. 10 p.m. Pulse 93 ; Temperature 100 1-5 ; Respirations 28 ; Sleeps quietly.

May 21st.—Pulse 112 ; Temperature 101 1-5 ; Respirations 30. No pain anywhere ; appetite good ; ordered a pint of beer.

May 25th.—Pulse 96 ; Temperature 102 1-5 ; Respirations 28 ; Medicine discontinued ; Bowels regular.

May 26th.—Pulse 100 ; Temperature 102 ; Respirations 28. He was ordered

℞	Tinct Ferri Perchlor	℥iii
	Quinæ Sulph	gr xii
	Syrup Simpl	℥iv
	Aquæ ad	℥vi

A tablespoonful three times a day.

Dullness and moist rales over the left side as before, depression under the left clavicle, respiratory murmur over the right side intensified, but no moist sounds ; appetite remains good. The temperature is highest about noon each day and declines towards the evening.

May 29th.—Pulse 100 ; Temperature 101 2-5 ; Respira-

tions 24 ; Feels well and wants to get up. He was ordered to have Infus Digitalis ℥iii added to his mixture.

June 2nd.—Pulse 100 ; Temperature 100 4-5 ; Respirations 24. Chest measurements the same as before ; moist rales and dullness over left lung ; Condition of the right lung remains as before. From this time until he left the Hospital, which he did soon after, the condition of the patient remained much the same. The average morning temperature was 100 to 102, and that of the evening was 102 to 103 4-5. His general health improved in spite of the continued elevation of temperature, and he left the Hospita three weeks after the operation.

Reviews and Notices of Books.

Essentials of the Principles and Practice of Medicine. A Hand book for Students and Practitioners. By HENRY HARTSHORNE, A.M., M.D., Professor of Hygiene in the University of Pennsylvania, &c., &c. Fourth Edition thoroughly revised, with one hundred illustrations, 8 vo. pp. 548 ; Philadelphia, HENRY C. LEA, 1874.

This little work first saw light in 1867, and in the preface to the first edition the author observed that it was an unambitious effort to make useful "the experience of twenty years of private and hospital practice." His unambitious effort has been to all appearance appreciated as the work has run through four editions.

We are puzzled how to commend this little book because although it contains much that is useful, nevertheless we are convinced that practical instruction is not to be gained through an epitome of this description. It is just this kind of work that will be selected by the ignorant or idle man, as here he has at hand a short, concise list of symptoms,

also pathology, prognosis and treatment of disease, all in readable space and which will not over fatigue him by being too voluminous, and again if he requires any suggestions as to remedies to be employed he will find an extensive formulary from which to select.

But these formulæ are not even reliable, indeed there are few that we should care to prescribe, and some that would require considerable alteration before they could be prescribed.

We should suppose that the author has very little practical experience of the qualities of drugs, for instance at No 54, we read R Chlorate of Potassium, half an ounce, water six fluid ounces, dissolve, the dose of which is half an ounce every three or four hours. Chlorate of Potassium is very insoluble, this fact is known to all practical men and we doubt much whether six fluid ounces of water at the ordinary temperature will hold in solution two drachms of Chlorate of Potassium let alone double that quantity.

The work however contains much that is essential, and that will be understood by a man who has been properly grounded in the elements of his profession, it may aid the practical man as he will find ready at hand, descriptions, definitions, terms, and conditions of the economy met with in disease and which require to be discriminated and interpreted by the physician before he can treat his patient with a chance of success.

In the early editions the author confined his remarks in a great measure to what he had himself learned at the bed side. In this edition he has partially modified his plan, "so far as to embody the most important suggestions as well as results of observation, presented in recent medical literature.

The author has enlarged his scope. In part I. we notice he discusses the subjects of Chronic Inflammation, Morbid Growths, Neuropathology and the modes of death. In part II. he considers the semiology of diseases of women, the use of the ophthalmoscope, the pneumatic aspirator &c.,

Under the heading "General Therapeutics" he considers in addition the following, Climatic treatment, Hydropathy Movement cure and Transfusion of blood. All these are additions given in the same short concise method as is observed throughout the work. The present edition is likewise embellished by one hundred wood engravings, they have been carefully selected with a view of elucidating to the student a number of subjects of especial interest and importance.

Clinical Lectures on Diseases of the Urinary Organs. Delivered at University College Hospital. By Sir HENRY THOMPSON, Surgeon Extraordinary to His Majesty, the King of the Belgians, Professor of Clinical Surgery, and Surgeon to University College Hospital. Second American, from the third and revised English Edition, with Illustrations. 8 vo., pp. 195. Philadelphia: Henry C. Lea. 1874.

These lectures were published originally by the London *Lancet*, in 1868, from a short-hand report, taken at the time of their delivery before the Clinical Class at University College Hospital. They were delivered by Sir Henry Thompson, in a colloquial style, the subjects having been prearranged, but were never committed to writing by the author. This Course of Lectures, the author has given before the clinical class year by year, with such modifications and additions as were demanded by his increased experience.

The present edition contains the substance of the lectures on this important subject, delivered during the Session 1872—73, and comprises the latest views enunciated by the author, with all the alterations he deemed necessary. When first delivered, these lectures were twelve in number. In this edition, the author gives us a general *résumé* of the entire subject of the treatment of Stricture, specially referring to internal urethrotomy. This is found in Lecture IV., and Lecture XI, he devotes to the consideration of

the early history of Calculous diseases, and the treatment best adapted for their prevention. The work partakes of the same practical character which distinguishes the former writings of the author, and which has been so fully appreciated by the profession. Alterations will be found throughout the text, more especially on those points in which the author has gained experience by a careful and judicious record of the cases which have come under his observation.

We regret to notice, that Sir Henry Thompson has resigned his connection with University College Hospital; but although the increased demand on his time by private patients, has apparently led to this change, we feel convinced, that a career so full of usefulness, will not, in any respect, be at an end; but, that with additional opportunities for following out his specialty, he will continue to give the results of his observations in future editions of his lectures on urinary diseases.

Periscopic Department.

MEDICINE.

Clinical Leeture on Itch in Private and in Public Practice, and its Treatment. By TILBURY FOX, M. D., F.R. C.P., Physician to the Department for Skin-Diseases of University College Hospital,

Gentlemen,—There are certain differences in the cases of itch that come under our treatment in public and in private practice respectively, to which I wish particularly to direct your attention. By public practice, I mean such as hospital, infirmary, and Poor-law practice, amongst the poorer classes. The matter is one of practical importance to you. You know that, in describing scabies to you, I do not follow the usual method of books, and divide the disease into papular, vesicular, and pustular scabies, and so forth; but I speak of the disease as consisting in an *essential* element or lesion, the acarus in and with its furrow,

and certain *accidental* concomitants, which result as consequences of the irritation set up, and the scratching practised for the relief of the latter, ; of, in fact, the acarian furrow and imbedded acarus, and the results of irritation. These latter vary in kind, and include hyperæmic papillæ and follicles, vesicles. pustules, and excoriations, &c. Now, in private practice amongst the better classes, the differences in cases of scabies, as campared with those observed in hospital practice, are those of *degree*, not kind, and have reference chiefly to the *accidenta*l concomitants, and only slightly to the essential lesion of scabies.

In private practice. cases are occasionally met with equal in severity to any that are seen in public practice ; but, on the other hand, as the rule, they are not so severe, and the disease is not ao extensive, and *very frequently in private practice instauces come under observation, in which the accidentals of scabies are scarcely if at all marked.* There are a certain amount of itching, and an acarus or two here and there, and nothing more; and such cases are often erroneously diagnosed. There are many instances of scabies only a slight shade worse ; a few acarian furrows, with a few papulations.

The variations are due to several causes, chiefly to the observance of greater cleanliness, the seeking of medical advice earlier (so that the disease has not time to put on the aspect of severity), and to the better nutrition, amongst the better to do, as compared with the poor classes. Cleanliness has the greatest influence, because it is a great check to the development, and migration from part to part, of the acari ; and mal-nutrition amongst the poor favours the development of the pustular concomitants ; and, lastly, the longer the disease lasts, the greater, of course, is the scratching. When want of cleanliness, much scratching, and mal-nutrition go together, the worst cases of scabies occur, and they may now and then, as I have said, be met with in private practiee. But, inasmuch as private patients are more cleanly than public ones, seek advice

earlier, and are well fed, scabies amongst them occurs in its least expressed form. But even when the disease has existed some time, it is surprising how slightly marked the disease is in some cases, on account of the extreme cleanliness observed, and the repeated washings practised by private patients.

It is with these slighter cases of scabies that I wish to deal specially—with those in which a solitary or a few acari are present, and very little else. A hasty observer may readily overlook the nature of such cases as those to which I now refer more particularly. I occasionally see instances of scabies which, at first sight, would seem to be instances of pruritus simply. There are two circumstances, however, about them, which should always put you upon your guard. The one is the seat of the pruritus—viz., the front of the abdomen, the penis, the inner and upper part of the thigh, and the front of the forearms; and the other is the occurrence of the pruritus especially, or perhaps only, at night, when the sufferer gets warm beneath the clothes. If careful examination in such cases be made, a reddish papulation may be detected along the upper line of the penis, or a solitary acarian furrow at one of the interdigital spaces or about the wrist; and this may not be readily found. I have often detected after careful search a stray furrow concealed by some of the little folds of skin in the interdigital spaces, which had escaped observation for awhile. About the forearm may or may not be a few very delicate papulations that require, for their clear detection, that the skin should be looked at obliquely. Of course I mean that, in the cases I describe, acari have been actually extracted from these solitary cuniculi. There may be no eruption any where but on the penis, one or two acarian furrows being seated there. I have known such cases complicated by glandular swellings in the groin, and mistaken for syphilis; but, if careful examination be made, the acarian furrows may very plainly be made out; and the swelling accompanying the furrow lacks the indurated

character of a true chancre, and is clearly simply inflammatory. In these cases of very slightly marked scabies, there is mostly no concomitant aid to diagnosis; I mean, for instance, no infection of others in the same family, &c. In a somewhat more marked degree, where there are a few acari and furrows about the interdigits, or the wrists, or perhaps the penis, with a small amount of rash on the forearms and the abdomen and thighs, the disease is very common. The acarian furrows, if the persons attacked be very cleanly, may readily be overlooked again, because they are not discoloured and rendered more distinctly visible by dirt; and frequently the acari are scratched away, and only the opened up cuniculus remains; but the form or skeleton of the cuniculus is seen. A little circular area, whence the cuticle which was upraised into the vesicle is gone, is seen; and, stretching away from this, is a line marked out on each side by loose cuticle, forming at one time the walls of the now opened up cuniculus. This is practically diagnostic of scabies. The papulation, if any, in these cases, about the forearms and the thighs, is made up of hyperæmic papillæ and follicles more or less scratched. There are no acari anywhere, but about the wrists and interdigits and the upper line of the penis. In these cases, the occurrence of itching at night, and the presence of fine papules on the anterior surface of the forearm and about the abdomen and thighs, at once suggest the probability of scabies being present.

The next degree of scabies does not differ from that ordinarily seen in public practice. I would say, then, as regards private practice, be very careful to satisfy yourselves that scabies is not at the bottom of what at first sight appears to be pruritus, which is intensified or developed at night, and is specially seated about the abdomen, the inner part of the thighs, and the forearms or hands. I know that such cases are oftentimes scabies, but are not diagnosed correctly till the disease developes to a decidedly significant extent.

Of course, I have been speaking of the disease in adults.

In the case of children, there may be no characteristic evidence of scabies about the hands, but only about the feet and buttocks. It is often difficult to detect cuniculi acari in very young children. But one very good guide is to be found in the character of the eruption. The disease most liable to be confounded with scabies is lichen urticatus. Well, that consists of wheals leaving behind papules. It may be said to be an uniform disease as regards eruption. There is no eruption besides the wheals and papulation. But in scabies the eruption is uniform. It is papular, vesicular, and pustular. In public practice, the scabies of children is marked by complicating ecthyma, as might be expected; but this is not so common in my experience in private practice.

Turning to scabies in public practice, I have only to observe, on this occasion, that the diagnosis of scabies, as ordinarily seen, is, as the rule, very easy. But, in rarer instances, the disease is so general, and so intermingled with excoriations and puriginous papules, etc., that it presents the aspect rather of a pruriginous eczema, or phthiriasis mixed with eczema, than a scabies, since the eruption is not confined to the usual seats of itch-rash, but attacks the parts about the shoulders, the back, the lower parts of the legs, and back of the forearm, as well. But there is one very safe guide in these cases; and that is, the history of the eruption, which shows that the latter began as scabies usually does, whilst acarian furrows will be detected, although most of them may be obscured by the free suppuration about them.

Treatment.—I have some special remarks to make in regard to the treatment of itch-cases in private and in public practice. You may very readily overtreat cases of itch in the former, for the reason that the disease is less severe, and the acari are not present over so large an area. In the mass of instances occurring in public practice, the disease exists for the reasons I have before given, extensively over the surface, and acari have burrowed, not only about the hands, but in other parts of the body, especially

the penis, the feet, the scrotum, and the abdomen perhaps. But in many cases in private practice, I mean amongst the well-to-do, the acari are *only* present at the interdigital spaces. Hence it is a rule of prime importance in treating itch, to accurately determine, at the outset, how far the acari have disseminated themselves about the body. The reason is obvious. There is no need to apply paraiticides to parts in which acari do not exist, because the irritation and eruption elsewhere are due to sympathetic action ; and these irritated parts will get well if the acari be destroyed, and they do not require the use of irritant remedies, such as parasiticide are, but soothing remdies. The practice is to apply to every part of the body where eruption exists in cases of itch. Clearly this is wrong, from what I have just said. My rule is this : if the disease be recent, if it be only slightly marked, if it began about the hands, and there be no cuniculi about the penis, I order the parasiticide to be rubbed into the interdigits, the palm of the hand, and the wrists, and I apply a soothing lotion to all other irritable parts of the body. If, however, there be—I am speaking of the slighter degrees of disease—cuniculi about the penis as well as the hand, and especially if the disease appeared to begin coincidently in point of time by itching about the lower part of the abdomen, then I apply the parasiticide to the hand and the penis ; but even here I do not rub in the remedies very long (for three nights and three mornings), and I only, for precaution sake, let the patient smear the parasiticide upon the scrotum and the thighs, and for two or three times. I then order a soap bath, a change of linen, and I expect my patient to be quite well. The absence of pruritic irritation at night on the third day I take as a good test to the cure of the disease. In no case do I use any but parasiticides of moderate strength ; half a drachm of sulphur to the ounce of lard is a sufficiently strong ointment, if sulphur be the remedy chosen.

But I will suppose that a well marked case of itch comes before you in a well-to-do person. Here I recommend you

not to depart from the rule I have laid down, viz., not to use your parasiticide generally to all the body, but to rub it freely in where the acari are, about the hands, the penis, and the scrotum, and to smear it gently on a few times only to the adjoining parts ; to use it for three days only, and not in too great strength. This suffices to kill all acari, and the secondary results, viz., those of irritation, quickly subside. What frequently happens is, that the remedies kill the acari, but their use is persisted in longer than is necessary to effect this object, and only aggrevates the already existing irritation and secondary eruption.

I repeat, then, by way of summary, that in private practice, if the disease be slight and recent, use the parasiticide to the hands only, and soothe the other parts with some emollient or astringent lotion or ointment : and, in all other cases, treat actively the hands and the parts about the genitals, but other parts only very slightly. In all cases, use remedies of moderate potency ; at the end of three days leave off the parasiticide, give a soap and water bath, and see if the itching at night have ceased. If any visicles appear betwen the fingers or about the wrists subsequently, these may be touched by the parasiticide. But if the latter be used for any length of time, the itching and irritation which had at first subsided, may increase, and this increase is often mistaken for an exaggeration of the itch, whereas it is that of the secondary pruritic eruption. In these cases. the skin becomes so irritated that it is a difficult matter to get it into a quiscent and healthy condition. *Over-treated cases of itch in private practice are by no means uncommon.*

I have one word to say in conclusion, about bad cases in private and public practice, and the use of sulphur vapour-baths. In these bad cases, no doubt the acari are disseminated widely, and active treatment is needed. One remedy in common use is the sulphur-bath. I think a caution is needed as regards its use. I believe that it is abused. Though I much prefer a good soaking in a sulphuret of potassium bath, and the prescription of a mild parasiticide

ointment, yet sulphur vapor-baths may be employed; but I think a single one properly administered—at most two—sufficient. I would have the patients well washed, first of all with soap and water, and then put into the sulphur-bath. If the effect be that the pruritus at night is destroyed, I do not think it needful to repeat the bath, especially where the skin is much inflamed. You have seen, yourselves, many cases in which these baths have cured the actual scabies, but have set up a severe inflammation and pruritus in the skin that are most difficult to subdue. I never use sulphur vapor-baths in itch, on that account, except where the disease is of the severest kind, because I believe all the acari can be destroyed by simpler and less irritating applications. In these cases, the same rule holds good, I think as in the simpler cases. It is easy to over-treat these cases. If, at the end of a few rubbings with mild sulphur or storax ointment the skin be less inflamed, less irritable, the vesicles and pustules drying up, and the patient get a good night, I consider that the itch itself is practically well, and I then treat by parasiticides the usual haunts of the acari and soothe other parts, But there is another very important matter in these cases. It is to keep the same linen on next the skin during the use of the parasiticide, and when a change of linen is made, to disinfect all the clothes by heat. I cannot now go into the question whether the acari dwell temporarily in the clothes. They can, no doubt, live long enough off the body in the clothes to be conveyed by clothes from one person to another, and, if so, then it is important to prevent these clothes from serving as the media of re-propagating the disease, or transmitting it from the infected to the healthy.—*British Medical Journal.*

Diphtheria.—The Board of Health of New York has published (*Medical Record*, Jan. 9, 1874), for popular information, the following precautions which should be observed wherever diphtheria prevails:—

Precautions—(*a.*) *The Dwelling or Apartment.*—Cleanli-

ness in and around the dwelling, and pure air in living and sleeping rooms, are of the utmost importance where any contagious disease is prevailing, as cleanliness tends both to prevent and mitigate it. Every kind and source of filth around and in the house should be thoroughly removed ; cellars and foul areas should be cleaned and disinfected : drains should be put in perfect repair ; dirty walls and ceilings should be lime-washed, and every occupied room should be thoroughly ventilated. Apartments which have been occupied by persons sick with diphtheria should be cleansed with disinfectants; ceilings lime-washed, and woodwork painted ; the carpets, bed-clothing, upholstered furniture, etc., exposed many days to fresh air and the sunlight (all articles which may be boiled or subjected to high degrees of heat should be thus disinfected); such rooms should be exposed to currents of fresh air for at least one week before reoccupation.

(*b.*) *When Diphtheria is Prevailing.*—No child should be allowed to kiss strange children nor those suffering from sore throat (the disgusting custom of compelling children to kiss every visitor is a well contrived method of propaga ting other grave diseases than diphtheria); nor should it sleep with nor be confined to rooms occupied by, or use articles as toys, taken in the mouth, handkerchiefs, etc., belonging to children having sore throat, croup, or catarrh. If the weather is cold, the child should be warmly clad with flannels.

(*c.*) *When Diphtheria is in the House or in the Family.*—The well children should be scrupulously kept apart from the sick in dry, well-aired rooms, and every possible source of infection through the air, by personal contact with the sick, and by articles used about them or in their rooms, should be rigidly guarded. Every attack of sore throat, cough, and catarrh should be at once attended to ; the feeble should have invigorating food and treatment.

(*d.*) *Sick Children.*—The sick should be rigidly isolated

in well-aired (the air being entirely changed at least hourly), sunlighted rooms, the outflow of air being, as far as possible, through the external windows by depressing the upper and elevating the lower sash, or a chimney heated by a fire in an open fireplace; all discharges from the mouth and nose should be received into vessels containing disinfectants, as solutions of carbolic acid, or sulphate of zinc; or upon cloths which are immediately burned; or if not burned, thoroughly boiled, or placed under a disinfecting fluid.

On the Minute Pathology of Enteric Fever: Preliminary Notice. By E. KLEIN, M.D.

[Dr. Klein has kindly furnished us with the following notes translated from the *Centralblatt fur die Medicinschen Wissenschaften*, Berlin, 1874, Nos. 44 and 45, in which it first appeared.]

1. Sections through the hardened ileum of persons who have died in consequence of enteric fever, show that there takes place an abundant absorption of peculiar organisms, by the lymphatics and venous vessels of the mucous membrane over and around and in the Peyer's glands.

2. In the earliest case I have examined (seventh day from the day on which headache came on), Lieberkuhn's crypts contained in their lumen peculiar greenish-brown, generally spherical, bodies of various sizes: the largest being twice and three times as large as a human colored blood-corpuscle; the smaller ones only one-half or one-fourth as large. They are densely crowded together, and appear then of a dark olive-green color. At the margin of such clusters, where they lie more isolated, numerous kidney-shaped or hourglass-shaped forms are to be met with, thus indicating rapid division. Similar bodies are to be found in the tissue of the mucous membrane, when they appeared to be enclosed within the lymphoid cells of the adenoid tissue. They are also contained in the venous vessels, and occasionally in a lymphatic space. In the

former, they undergo rapid division in two and three, whereby they gradually split into small granules—micrococci, which are of a yellowish-green color. These micrococci are arranged either as dumb-bells, or as necklaces of four and more joints, or they form true zooglœa. Finally, these micrococci stand in a genetic relation to a mycelium, the filaments of which are branched, apparently smooth, and of a yellowish-green color. (Similar observations I have published in a paper on sheep-pox, read before the Royal Society.)

The organisms just mentioned are to be met with, not merely in the neighbourhood of Peyer's glands, when moderately swollen, but also in portions of the intestinal mucous membrane, which, on microscopical inspection, except a slight general swelling, do not present any marked changes; microscopical observations show, however, also here, changes in the lymph follicles of Peyer's glands, which will be described hereafter. Besides these organisms mentioned above, there are also found lumps of the same micrococci, as before mentioned, penetrating from the free surface through the epithelium into the substance of the mucous membrane, especially into the Lieberkuhnian crypts, and hence into the lymphatic spaces surrounding the latter.

3. In a case more advanced (twelfth day), I found exceedingly large quantities of micrococci penetrating from the free surface of the mucous membrane into the tissue of the latter and into the Lieberkuhnian crypts, and hence into the lymph-spaces and venous vessels: this was the case, not only with the mucous membrane around the Peyer's glands. but also with parts of the mucous membrane that were somewhat remote from these glands, and which did not show marked changes on macroscopical inspection. Where these micrococci form close groups, as in and around the Lieberkuhnian crypts, they appear of a rather yellowish-brown color.

4. In another case, still more advanced (sixteenth day),

I met with the same relation ; the number of micrococci being, however, much smaller.

5. The lymph follicles of the Peyer's glands showed, in the first case, (seventh day), a peculiar change, consisting in the centre of the follicles being converted into a spongy mass, owing to their blood-vessels being surrounded by spaces, lined by the adenoid tissue ensheathing the blood-vessels. The lymphoid cells of the adenoid tissue were transformed into large granular corpuscles containing two to five and more nuclei, which very much resembled the nuclei of "endothelial" cells. In some of the lymph follicles, I found two giant-cells.

In the later stages (twelth day) also, the mucous membrane showed similar changes ; the lymphoid corpuscles of its adenoid matrix being transformed into large, coarsely granular cells, containing either one large vesicular or constricted nucleus, or several such nuclei. Some of these cells possessed a vacuole, containing two or three small spheroidal nuclei. Similar cells were found in the venous vessels of the mucous membrane and the submucous tissue, as well as in the lymphatics of the latter.—*British Medical Journal.*

The American Agave. By A. N. ELLIS, M. D., A. A. Surgeon U. S. A., Fort Wallace, Kan.

Through the columns of your Journal, I would like to say a few words on the "American Agave."

Several years ago, when I was the attending physician to the Southern Apaches, in New Mexico, my attention was first called to its valuable properties as an anti-scorbutic. When the Southern Apaches were removed from Canada-Alamosa, on the Rio Grande, to the Tularosa Valley, in the Mogollon Mountains, the altitude was so great—between seven and eight thousand feet above the level of the sea—and the seasons so short, that but few vegetables were raised. The food of the Indians being almost exclu-

sively meat, an anti-scorbutic was demanded. Much to my surprise, there was not even the slightest appearance of scurvy. Investigation showed that these Indians were making use of the agave Americana, which grows in abundance in that mountain region. It is an evergreen, succulent plant, often growing to a height of fifteen feet, and is found in Texas, New Mexico, Mexico, and Central America. It bears some resemblance to the genus *aloe*, and hence it is often spoken of as the *American aloe*.

The juice is expressed from the leaves and the root. When fresh it is of a sweetish taste and nauseous odor, and reddens litmus paper. Evaporation converts it into syrup, and fermentation into an intoxicating drink. The Apache seems to be acquainted with the virtues of the plant, more especially those which constrain him to show forth his real disposition. The Mexicans employ it in the treatment of constipation and amenorrhea.

I made use of this remedy in the treatment of a number of soldiers suffering from scurvy with the happiest results. Found it as prompt and efficacious as lime-juice. Gave two or three ounces, twice a day, of the fresh juice. Maceration of the root and leaves produces a soft lather, and is much used in washing clothes, more especially in garments of beautiful and delicate colors likely to fade under the use of common soap. The fibres of the old leaves—those which have been macerated for several days—are used for making thread.

The American agave is indigenous in tropical America, but has been transplanted to Europe, where it is used in making hedges. It is not this plant which produces the intoxicating *pulque*, so much used by the Mexicans, but one of another species, to which it bears many points of resemblance.—*Cincinnati Lancet and Observer*.

Operation by Professor Lister for Goitre.

Last week Professor Lister operated successfully at the Edinburgh Royal Infirmary, in a case of goitre affecting both sides of the thyroid body. Before proceeding to remove the tumour, the operator ligatured the superior and inferior thyroid arteries, by which preliminary hæmorrhage was almost entirely prevented.—*Students' Journal*.

Brain Disease Simulated by Overstrain of the Convergence Muscles of the Eyes.

Mr. Brudenell Carter described the case. The patient, a young gentleman, was interrupted whilst reading for honours at Oxford, by double vision and vertigo, followed, if the effort to read were continued or soon resumed, by sickness, palpitation, and intense headache. These symptoms were attributed to some obscure affection of the brain, and the patient was directed to leave the university without taking a degree. He remained for some time at home, under medical treatment, without improvement, and, on coming to London for further advice, was told to take a voyage to Australia and back, in order to rest his brain. He did so, but returned no better, and was then advised not to enter into business, and to abandon his engagement to marry. Mr. Carter was consulted about the case, in order that he might say whether the ophthalmoscope revealed anything abnormal in the cerebral circulation. He found the patient to be very short-sighted and that he had never worn spectacles. In reading, he held his book seven inches from his eyes; and Mr. Carter ascribed the symptoms to inability to maintain this degree of convergence for many hours. He ordered spectacles to be worn constantly, and reading to be practised at eighteen inches distance. In three weeks the patient returned cured, with his wedding-day fixed and his arrangements for entering into business completed. In his concluding remarks Mr. Carter said that the case, though exceptional, was exceptional only in degree, and that many patients suffered from headache and other symptoms due only to impaired harmony of the ocular muscles, or to inordinate exertion of some of them. He urged that, in every case of obscure head-affection, the state of refraction, of vision, and of the muscles should be carefully investigated; at all events, before a patient was sent to Australia, or advised to abandon his position and duties in life.

Dr. Hughlings-Jackson considered Mr. Carter's paper to be as interesting to physicians as to ophthalmic surgeons

He (Dr. Jackson) referred to a case in which hypermetropia, which was an indirect cause of nervous troubles, had been by several eminent ophthalmic surgeons and by himself misinterpreted. It disappeared when appropriate glasses were worn. Since then he has always considered the state of the refraction of the eyes as well as the state of the fundus in patients who have what may be called minor cerebral symptoms. He referred to another case he had seen with Mr. Carter, in which severe headache seemed to be fairly attributable to hypermetropia and astigmatism. He considered that cases of ocular palsy were, for the study of the nature of vertigo, the simplest of all cases. It was clear from these cases that vertigo was a motor symptom. It was not due to double vision, as commonly supposed, as it occurred on use of the paralyzed eyeball only—that is to say, under conditions in which double vision was impossible. Yet, as a matter of fact, vertigo, in physicians' practice at least, was not commonly met with in cases of ocular palsy. This was owing to the fact that, in the case of the sixth nerve, the patient, so to speak, dodged the paralysis by holding his head stiffly inclined; and in the case of the third nerve, to the fact that the paralysed eyeball was covered by the drooping lid. In the latter case the patient did not reel nor feel giddy, but if he closed the good eye, and if the paralyzed lid were upheld, he would, when walking, feel giddy, and might feel sick. The vertigo was due to "erroneous projection." There was a duplex condition; there was over-estimation of the range of a movement of the eyeball intended, but not really performed, and action of movements of locomotion in accordance with that false estimate, and thus over-action of them.

Dr. Poore said the case reminded him of some forms of chronic fatigue of the muscles, as in "writer's cramp," where the strain falls on certain muscles only. These after a time refuse their office, with pain, headache, etc. Mr. Carter's patient might be said to suffer from "reader's cramp."

Dr. Rasch referred to the case of a patient who suffered from vertigo and sickness, apparently from a plug of wax in the ear.

Mr. Carter, in reply, said he remembered the case referred to by Dr. Jackson, and as the patient promised to return if he did not improve, but had not again made his appearance. he concluded that he was well.—*Medical Times and Gazette.*

Read before the Clinical Society of London.

The Guaiacum Process for the Detection of Blood and Pus in Urine.

To the Editor of the Medical and Surgical Review (Australasian.)

Sir,—Your last issue contains a notice, taken from the *Medical and Surgical Reporter*, of a plan suggested by Professor Almen for the detection of blood in urine, which is as follows:—"A few cubic centimetres of tincture of guaiacum are mixed with an equal volume of oil of turpentine in a test tube, and shaken until an emulsion is formed. The urine to be tested is carefully added, so that it may sink to the bottom. When the emulsion and urine come into contact, the guaiacum resin separates, and falls as a fine white, dirty yellow, or green precipitate. If blood is present in the urine, the resin will have a more or less intense blue color, often almost indigo. In normal urine, or that containing albumen or pus, this blue color does not appear, and thus proves the absence of blood."

The guaiacum test for blood in urine is not new, as the following extract from a paper "On Colour Tests as Aids to Diagnosis," read by me before the Medical Society of Victoria, October 6th, 1869, will show:—

"The piece of paper I now show you contains traces of blood upwards of twenty years old. On applying tincture of guaiacum to it no change of colour will occur, but on adding a drop or two of ozonic ether, the guaiacum will be rapidly oxidized and acquire a bright blue colour. The test for pus is made by exposing a saturated alcoholic solution

of guaiacum to the air until it has absorbed a sufficient quantity of oxygen to give it the property of burning green when placed in contact with iodide of potassium. Perfectly sound tincture of guaiacum, such as should be used for the blood test, undergoes no change of colour in the presence of iodide of potassium. On this piece of paper there is a small quantity of pus. It is more than nine weeks old, and yet you will see that on moistening it with water and pouring a drop or two of the oxidized tincture of guaiacum over it, a clear blue colour will be produced. In operating on pus which has become dry, it is always necessary to moisten it with water before applying the test. . . . As aids to medical and surgical diagnosis, these tests bid fair to become of great service. The ease with which, by their agency, the presence of minute traces of blood and pus may be recognized in sputum and urine, renders it unnecessary for me to occupy your time in pointing to cases in which they may be usefully applied. I will mention, however, that in surgical cases where any doubt exists regarding the presence of pus in deeply seated parts, the use of a grooved needle and the pus-test would at once decide the question."

I generally carry these tests with me, and often find them of great service as aids to diagnosis. In examining urine, all that is necessary is to place a small quantity of it on a white plate and then add to it a little newly-made tincture of guaiacum, which alone should not undergo any change of colour; a few drops of etherial solution of peroxide of hydrogen—erroneously called ozonic ether—should then be added, when, if blood be present, a bright blue reaction will quickly take place. In testing for pus, the process is, if possible, still simpler. It is merely to add to a little urine, on another part of the plate, a few drops of the oxidized tincture of guaiacum, when, if pus be present, a blue reaction will be the immediate result. The reactions from these tests should be observed within a few minutes of the time of their application, for guaiacum resin

has an affinity for atmospheric oxygen, and in the course of a little time begins to turn green, which would be apt to mislead.

I am, Sir, your obedient servant,

JOHN DAY, M.D.

Geelong, September 23rd, 1874.

—*Medical and Surgical Review (Australasian.)*

SURGERY.

On Subhyoid Pharyngotomy (v. Langenbeck, December 1st, 1869.

This operation, first suggested by Malgaigne in 1835, and first carried out on the living subject by Prat in 1859, was twice performed by the author for tumours in the throat. One case recovered: one died. The method followed is given by v. Langenbeck. The first step is tracheotomy, after which a sponge is used to plug the larynx and prevent the blood entering the trachea during the further steps of the operation. This done, the incision along the lower border of the hyoid bone is made, reaching from one omo-hyoid to the other. The fascia and sternohyoids having been divided, the thyrohyoid membrane and finally the mucous membranes are cut, and the epiglottis thus exposed is drawn forward by forceps. When the cut is properly made, the larynx is found to drop away to some extent from the hyoid bone. The superior thyroid artery and nerve are not in the way in making these incisions. When the larynx is thus drawn forwards the interior can be inspected, and any growths removed by the usual means. The author thinks the operation indicated where *(a.)* Foreign bodies in pharynx, situated in the pharyngolaryngeal cavity, cannot be removed by the mouth. [*b.*) Tumours in this part of the pharynx are seated with broad basis in the mucous membrane, or in the wall of the pharynx between the mucous membrane and the muscular layer. (*c.*) Growths exist on epiglottis, aryteno-epiglottidean ligaments or arytenoid cartilages.—*Glasgow Medical Journal*

Amputation of a Child's Tongue.—

Prof. Azzio Caselli reports, in the *Bulletino delle Scien. Med.*, the case of a child nine years of age, which had wounded its tongue by a fall. A cancerous tumour followed, which in two years had extended over the entire right half of the tongue, except its summit; the tumour also invaded the central portion of the left half and the right half of the floor of the mouth. At the point where the tumour first made its appearance there was a large ulcer, from which flowed blood and ichorous matter. There was no ganglionic enlargement, but the child was anæmic and emaciated.

The patient entered the hospital September 1, 1873 There was then a very acute glossitis, consecutive to the mastication of irritating substances There was also some obstruction to respiration. In a few days, while the child was nourished by means of the œsophageal catheter, introduced through the nostril, the inflammation yielded to the bleedings and cold applications. On the eleventh day Professor Caselli commenced the removal of the entire tongue by Rizzoli's method, dividing the lower jaw at the median line, and applying a ligature. On the fifth day, as the tumour was slow in disappearing, he removed it by means of Chassaignac's *ecraseur* without the least hæmorrhage. At the end of thirty days the wound had entirely healed and deglutition was normal. Although three-quarters of the tongue had been removed, the child was able to pronounce *s* and *z*.—*New York Medical Journal.*

Sterility after Lithotomy.

Mr. W. F. Teevan has published ("Trans. Clinical Society," vol. vii., pp., 179, 180; and Trans. Path. Society vol. xvii. p. 186), four cases of this in males operated on by the lateral operation for stone. The stones removed from the bladders do not appear to have been large, and the subjects of operation were all young, two being infants. Mr. Teevan explains it by the operation, as usually performed, involving a laceration of the floor of the prostatic urethra, the ejaculatory ducts being torn across, or the orifices plugged with inflammatory exudation in the process of healing.—*Students' Journal.*

CANADA

Medical and Surgical Journal.

MONTREAL, FEBRUARY, 1875.

THE LATE WILLIAM SUTHERLAND, M.D.,

EMERITUS PROFESSOR OF CHEMISTRY, MCGILL UNIVERSITY.

We have to record the death of our friend and colleague, WILLIAM SUTHERLAND, M. D., Emeritus Professor of Chemistry, McGill University, which sad event occurred on Tuesday morning, the 9th February, 1875.

Dr. SUTHERLAND has for years been an invalid, although with remarkable tenacity he has followed the practice of his profession almost to the very last. He was a man of remarkable determination and will, full of kindness and gentleness. It was with a pang of regret that some two years ago he found it necessary to sever in a large degree those ties which bound him to his patients, reserving his remaining strength to give counsel and advice to those who sought it from him at his office.

Dr. SUTHERLAND graduated at McGill University on the 25th May, 1836. On that occasion he submitted to the Faculty of Medicine and defended publicly an inaugural dissertation on asphyxia. This treatise is exhaustive, the style clear and lucid, the language pure and powerful,—a faculty possessed by him in a remarkable degree to the end of his public career.

After graduation, the subject of this notice removed to Western Canada, and practiced his profession on the Niagara frontier. He was induced to return to Montreal, about the year 1840 or 1841, since which

period he has been engaged in the active pursuit of his profession in this city.

In the autumn of the year 1843, Dr. SUTHERLAND, in association with several other medical gentlemen, of whom Dr. MUNRO alone remains, established the "Montreal School of Practical Medicine and Surgery." This school was established ostensibly to give the French Canadian students an opportunity of hearing lectures on the Science of Medicine in their native tongue. It entailed much labour on the teachers, because they delivered lectures daily in both languages, so that two hours of the day were given by each ecturer for the instruction of pupils. The Chair of Chemistry in this school was ably filled by Dr SUTHERLAND. We speak of what we know, as during that exciting time we followed the lectures at McGill University, but frequently attended Dr. SUTHERLAND'S lectures, as we were personally acquainted with him and admired him as an able lecturer and kind friend.

We remember with what pleasure and instruction we listened to his clear and lucid explanations, his classic language,and with what interest we watched his rapid manipulation and accurate results. All those pleasing and attractive features were to be found in him as a lecturer. It was indeed the fact of his capacity in this respect which induced the authorities of McGill University at a later date to secure his able assistance as a teacher of chemistry. With the establishment of the school appeared the Montreal self-supporting Dispensary, an institution which was started to afford clinical instruction to the pupils of the school. It was found, however, that many persons able to pay took advantage of the dispensary, and sought aid and surgical and medical relief at this institution because it could be obtained there *gratis*. This was fully

recognized as an abuse and led to the discontinuance of the Dispensary. We notice the last entry in the books is dated 5th December, 1844, the first entry being 2nd October, 1843.

Almost at the time of the establishment of the School of Practical Medicine and Surgery, and of the self-supporting Dispensary, was there a first attempt made to publish a medical periodical in Montreal, and in April, 1844, appeared *The Montreal Medical Gazette*, a monthly journal of medicine and the collateral sciences, under the joint editorial management of the late FRANCIS BADGLEY, M.D., and the subject of this notice. It was most ably conducted, and on referring to its pages, we learn that the question of establishing a Canadian Medical Association was suggested and discussed in the columns of this periodical, and we believe that failure alone attended the attempt at that time because of the difficulty of travel. Without railroads and with inferior steamboats, Toronto was as far from Montreal in point of travel as is Liverpool at the present time.

The Canadian Medical Association was formed in the year of grace 1867, and received the unqualified support of the profession of this Dominion, extending from Halifax to the Pacific. But the idea was suggested and advocated a quarter of a century before by able editorial articles, which still remain to us, though the writers have both passed to their rest. But more than this, not only was the suggestion made in 1844 by Drs. BADGLEY and SUTHERLAND to establish a British American Medical and Surgical Association on the same basis and with the same objects as the Provincial Medical and Surgical Association of England, but later, in 1850, it appears, on reference to the records of the Medico-Chirurgical Society of Montreal "that "Drs. BADGLEY, SUTHERLAND and DAVID be named "a committee to submit to the members of the "medical profession of Canada a prospectus of the "objects to be attained by the formation of an

"Association to be styled 'The British American "Medical and Surgical Association,' the manner in "which these may be realized, and to request the "co-operation of the profession throughout Canada "in carrying out the scheme." The report of this committee, dated 27th February, 1850, and signed by Drs. BADGLEY, DAVID and SUTHERLAND, is to be found in the March number (1850) of *The British American Journal*, edited by the late ARCHIBALD HALL, M.D.

Dr. SUTHERLAND'S connection with the School of Medicine and Surgery ceased at the end of the session 1848-1849. Some time in the month of August, 1849, he accepted the Chair of Chemistry in the Medical Faculty of McGill University. From this date up to the year 1866 he continued to deliver his course of lectures on that branch in connection with McGill University, and from his excellent qualities as a lecturer contributed largely to the success of the University. From this time his health has gradually failed. From what was at first regarded as a laryngeal affection, tubercular phthisis was developed which, at his age, was slow in its advance, and on Tuesday, the 9th February, he breathed his last, in the sixtieth year of his age. No *post mortem* examination of his body was made, nor was it deemed necessary.

Dr. SUTHERLAND was a fluent speaker, an original thinker. Though latterly he did not record his observations, yet while in health he was a valuable and working member of the Medico-Chirurgical Society of Montreal, and twice held the highest honour in the gift of his professional brethren, in being elected their President. He was a general favourite, highly respected, and looked up to by his junior *confrères*. His opinions on subjects of a medico-political aspect were broad and liberal. In private life he was esteemed highly; his manner, though firm, was kind, and his punctuality and attention to the business of his profession enabled him in the decline of life to enjoy that quiet and solace of opulence which is not usually accorded to the medical practitioner.

THE WESTERN HOSPITAL.

We observe, that a site has been secured and money subscribed to build a Hospital in the Western division of this city, and we believe that arrangements are in progress for the purpose of carrying out the scheme. In all honesty we cannot say that this is a necessity however anxious we may be to see a Hospital built on a modern plan. The question of hospital accommodation is a difficult one to deal with, it is not alone the money to be obtained for the erection of suitable buildings, that has to be considered, but to be a useful institution it will require liberal support to maintain it in a condition of efficiency. The want of a convalescent home or a hospital for chronic cases of disease has long been felt. The subscribers to the Western Hospital are with few exceptions interested in the successful maintenance of the Hospital already in existence. What may we ask would the city of Montreal do without the Montreal General Hospital. We all at times individually feel its importance and if in any respect it is to suffer by division of interests what will be the result.

A large number of sick poor are obliged to take advantage of admission to the wards of the Montreal General Hospital who would be far better elsewhere if an institution suitable for their ailments existed.

We are not disposed to throw cold water on the laudable efforts of the promoters of the Western Hospital as we think there is ample room for such an institution if its objects are to be in common with the institution already in working efficiency. There is no actual need for two institutions with the same objects. To speak more plainly there are a large number of patients constantly occupying beds in the Montreal General Hospital whose cases are of a chronic character, a number of persons suffering from consumption that would be benefited and lives that would be prolonged if placed under more advantageous circumstances. In London, England, there is to be found the Brompton

Hospital devoted exclusively to the treatment of cases of consumption. The general hospitals are reserved for cases of acute disease and when cases become chronic or are likely to be benefitted by change they are removed to the institution at Brompton. In connection with this institution there is in process of erection an hospital for the removal of patients to the more southern parts of England at or near some sea-side watering place so as to give those patients who are likely to be relieved the benefit of change of air. This is a scheme which is not required in Montreal or at least if required would not perhaps be judicious but a hospital to relieve the Montreal General Hospital of many of its sick poor would be a great boon. It would be well for the promoters of the Western Hospital to consider the question in all its bearings and not forget the old maxim that "union is strength." The two institutions uniting and working in harmony, having one object and desire, the mutual aid of each, appears to us to be the wisest plan, as there is truth in the text that a "house divided against itself cannot stand."

DESTRUCTION OF THE BEAUPORT LUNATIC ASYLUM BY FIRE.

It is with regret we record the destruction of the greater part of the female wing of the Beauport Lunatic Asylum at Quebec and in recording this catastrophe we cannot but express our astonishment that so few lives were lost. Great credit is due to the superintendent and his assistants for having so coolly and deliberately managed the unfortunates under their care during a time of such peril and excitement.

We give below a report taken from the telegrams of the day.

QUEBEC, Jan. 30.

One of the most fearful conflagrations which it has been our lot to record, occurred last night at the Beauport

Lunatic Asylum. About half-past six an alarm of fire was given, and it is supposed that the cell where it originated had been set on fire by one of the female patients, a woman of very vicious character, named Marie Breton. Her conduct had been such that she had to be put in the cells, and she vowed that she would have her revenge out on the "cursed place," as she termed the asylum. It is very certain that she was treated with the utmost kindness and consideration, but at times her outbreaks were such that she had to be placed under the severest restriction. Whatever may have been the destructive designs she formed, it seems almost certain that she suffered a horrible fate in the flames she is supposed to have kindled. It is supposed that she placed a candle under the bed and then shut the cell door. This seems to have occurred when the inmates were at prayers. There was a terrible scene in the western wing. By extraordinary exertions the female patients who had been in the south-eastern wing had been conveyed through the crowds to the western wing, and there they were cooped up, several hundreds of them, until sufficient means could be found of conveying them to the outlying male department of the institution. In the craze of fright the poor creatures became almost rabid, and when they were huddled together their frantic talk and hysteric shrieks were pitiable. This was about nine o'clock. The room was as full as it could hold, and it required every exertion the nurses and guardians could make to maintain anything like quiet in the ward. Some were sobbing piteously, some silently swaying to and fro, some passionately weeping, some singing triumphal songs and rejoicing in the work of destruction going on around them, some shrieking, howling and blaspheming, some calm and collected, as if fully apprised of the danger impending over the building Strange to say, one of the worst cases in the female ward entirely recovered her reason in the panic, and is now as sane as possible. When the alarm was given Madame Vincelette took it very quietly and notified her husband, who proceed-

ed to remove some of the patients from the cells to the ward in the western side; but the smell of smoke acted upon some of them as that of blood upon a tiger, and they nerved themselves for the fight. They hit, tore and scratched, and became as refractory as possible. The fire was spreading with frightful rapidity, the corridors filling with suffocating smoke and heat. The unfortunate inmates were noisy, intractable, and they would not leave ; they hid under beds, wrapped up in blankets or sheets, and required extraordinary strength to extricate them. The flames were dancing through the corridors, still they hid, and despite the efforts made to save them, it is believed that three inmates perished in the conflagration. Three times Mr. Vincellette broke down under the load he was carrying, and each time was he rescued by faithful coadjutors. On the last occasion he fell from the third to the second story in endeavoring to save two women ; he cut himself seriously, and dislocated his right elbow. He was rescued at the point of suffocation by Hypolite Lassard and conveyed to the male ward. But all could not be saved. There were those who put themselves beyond the reach of human help, and went down to the death they courted. These were Miss Bazin of Montreal, Miss Prussien and Miss Breton, left behind in the burning building—at least such is the belief of the Superintendent and his wife—and it is presumed that they were burned or suffocated to death. The supposition as to their disappearance is certainly a most painful one, and there seems to be circumstantial evidence enough to prove that they died in the flames.

After nine o'clock the Mayor and members of the Council were on the ground and every exertion was being put forth to save life and property. The Mayor very properly put himself in charge of the Corporation Fire Service and dispelled whatever doubt there may have existed of his being perfectly competent to deal with fires. But the pillage became something extensive until finally a detachment of the 8th Battalion had to be sent for. The amounts of insurance effected on the building have not transpired but it is said that they are very heavy.

CANADA

MEDICAL & SURGICAL JOURNAL.

Analysis of Milk. By Gilbert Prout Girdwood, M.D., M.R.C.S., England. Professor of Practical Chemistry, McGill University.

For some time past we have had a by-law of the corporation, professedly intended to prevent the sale of adulterated milk, and for punishing those who infringe the law. This has been altogether a dead letter, and productive of no result; the new inland revenue act against the adulteration of food and drink which was passed last year has now come into force. The difficulty of efficiently carrying out any such law, is the necessity for exactness in the determination of the standard of excellence as a point of comparison. In a city like Montreal, where a large supply of milk is required, there must be both large and small suppliers; one may have a cow giving very rich milk, another very poor, and there may be difficulty in determining the value of the milk given by each, and at different seasons, and hence determining whether the milk is adulterated or not.

For the purpose of trying to give a standard I have been engaged since last September in making a series of analyses of milk. The milk I obtained from my own cow which is stall fed, upon hay, 2 bundles a day; 1 small bran mash night and morning, and such scraps from the house as are fit for her; and, from milk supplied to me by Mr. de Bellefeuille MacDonald, of the Grey's Creek farm, who keeps together 150 cows so that what I received from him may be taken as an average of milk from that number of cows. Mr. MacDonald, whose cows I have seen here in

Montreal, are fed almost exactly as my own ; but besides the 150 in town, he has 150 more cows at his farm near Cornwall, so that practically the average is from 300 cows. That from my own cow is I know a richer milk than is usually met with.

These examinations have been made, from time to time daily, during a period of seven months, and the average as given, is the result of the mean of these observations, they are recorded in a tabular form and compared with the analysis of milk as given by different authors, I have not taken milk from animals fed on grass, as my object has been rather to arrive at a standard of what milk should be as supplied during the winter months than of what is obtained during the summer. I am not prepared to say what will be the average for the summer months,when cows are fed upon grass at pasture but, even during the summer, numbers of cows are fed in stall upon hay. I purpose however, extending my observations during the coming summer and will give you the results so that if any alteration becomes necessary for a summer standard it may be made.

Considering that milk contains all the constituents necessary for the growth and development of the animal and that too in a very easily assimilated form, that it forms the principal food of children, and of sick persons, the only food of young infants, and that the due proportion of each ingredient is undoubtedly arranged by nature so as to be properly adjusted the one to the other, so as not to overload one portion of the body at the expense of the remainder it becomes of paramount importance, to the well being of children and the sick, that the proper equilibrium of food should be kept up.

I have divided the food contained in milk into four heads for the purpose of simplifying analysis and conparison, namely, water, butter, or fat, the heat producing or respiratory element of milk. Cazeine, Sugar, &c., which principally supply nutritious elements or elements used in digestion and last salts or earthy constituents used in the formation of the skeleton, and in the process of digestion.

The process adopted in these analyses has been the actual weighing of each of these four classes of constituents.

In the first place the specific gravity was taken. One thousand grains accurately weighed out, and carefully evaporated to dryness in a platium dish and weighed repeatedly till weight remained constant, the weight of dish subtracted yields the total solid constituents in 1000 grains, the difference between this weight and 1000 grains is the water lost by evaporation.

Residue exhausted with Ether is deprived of all the butter, the residue again dried and weighed gives the Cazeine Sugar, &c., and Ash.

Cazeine Sugar, &c., burnt off the residue is the Ash.

The Etherial solution evaporated till all Ether is gone, and residue weighed gives the amount of butter.

Of course this process may be still further increased by ascertaining the properties of the component parts of the Ash such as the quantities of Phosphoric acid, Lime, Chlorine, &c., the separation of Cazeine, Sugar, &c., but for purposes of ascertaining the purity I think the above is sufficient, at any rate at present; when ingenuity in adulteration is carried further, other more elaborate analysis may be necessary.

TABLE OF COMPARISON.

Name of Authority.	Professor Miller.	Dr. Attfield.	Sir Robert Kane.	Dr. Girdwood.	Dr. Girdwood. McDonald supply.
Water	874.00	864.00	859.10	828.90	848.00
Butter	40.00	36.00	39.30	38.58	31.60
Cheese, Cazeine, &c.	79.00	93.00	98.70	123.79	114.00
Ash	7.00	7.00	2.90	8.73	6.40
Total	1000.00	1000.00	1000.00	1000.00	1000.00
Specific Gravity	1030 to 1035	1034.00	1034.80	1034.60	132.80

In the last column is the result of the average of 150 cows—during a period of 7 months, the variation being so light as not to be worthy of note.

I think from these results that for stall-fed cattle the average of the last column may be taken as a practical standard for the autumn and winter months; at any rate any deviation from this, say in reduction of fat, would indicate the abstraction of cream, and the milk should be sold as skimmed milk, which for many purposes is as good as if the cream were left in, but under the new act such abstraction will be punishable. In like manner any decrease in the quantity of cazeine or salts would indicate the addition of water, the specific gravity alone can give but little information as to the purity or otherwise of the milk. Nor does the quantity of cream alone give an idea as to whether adulteration has been practiced, but the four conditions taken together are likely to be near the proper result.

Since writing the above, I have received The "Chemical News" for February 5th, wherein is a paper on milk, by C. A. Cameron, M.D., Professor of Hygiene in the Royal College of Surgeons, Ireland, who gives the result of his experience in Dublin milk, as per 1000 parts:

Water, - - -	870.00
Fats, - - - -	40.00
Cazeine, &c.	83.80
Mineral, - - - -	06.20
	1000.00

The same number also contains a report of the proceedings of the Society of Public analysts who establish the limits for the constituents of milk as follows:

"Milk shall contain not less than 2.5 per cent of butter fat." These limits are given as the minima of quantities. I should be harder on the milk vendors, and require a higher standard. And if the cow will not give a milk up to the standard, it were better to fatten her for the butcher, and raise one that will give richer milk, this will tend to improve the breed of cows.

Division of the Isthmus to relieve Dyspnœa in certain cases of Bronchocele. By Sir G. Duncan Gibb, Bart., M.D., LL.D., Physician to Westminster Hospital.

In the course of an experience of many years several cases of enlargement of the thyroid gland, affecting one or both of the lateral lobes and implicating the isthmus, have come under my observation. When the isthmus is enlarged, there is usually present a feature of great significance that is the precursor of future mischief—namely, the presence of dyspnœa from pressure upon the trachea, to which very soon it becomes strongly adherent. If not relieved by treatment, the lateral lobes—which in their enlargement sometimes spring from the isthmus itself—may extend on either side of the trachea itself and completely encircle it. The consequence of this is that the tube is compressed laterally, and its form becomes oval, with a very narrow passage to breathe through, which sooner or later ends fatally. An instance of that kind in a young Oxford man was under my observation in 1869, in whom the enlargment was attributed to a cold caught whilst sleeping with the window open. The progress of extension around the trachea was rapid; the compression was so great that fatal dyspnœa occurred in January, 1870, and after death a narrow oval fissure was found to be all that the patient could breathe through during life. Tracheotomy was ineffectually attempted by a skilful hospital surgeon, and, as no relief was afforded, the belief was entertained by a physician of eminence, who saw the case *in extremis*, that an aneurism might be present to account for the symptoms. As I had given the opinion to the father that nothing was wrong beyond the bronchocele and its influence on the trachea, an autopsy proved that only such really existed, and the heart and other organs of the body were healthy. In stating this no blame whatever could be attached to the physician who saw the patient in the hour of his extremity. I could cite other examples, where the disease was gradually progressing towards the same result, and no doubt

they are familiar to those in the habit of seeing bronchoceles. However, in some of our hospital museums the preparations themselves show how hopeless are all means of cure when once the trachea is grasped by the tumour. I had long thought over the matter, and came to the conclusion that the only remedy in such cases was to remove or divide that portion of the bronchocele which was in contact with the trachea itself—namely, the isthmus,—*before* it had commenced either to encircle the tube or had become too firmly adherent to it. This last summer the opportunity was afforded me to have this practice tried, and I am happy to say with the best results. The symptom that was the most urgent was dyspnœa, owing to the pressure of the enlarged isthmus, which had formed a distinct tumour over the trachea nearly the size of a walnut. This was adherent to the deep fascia over the trachea, and moved up and down with the tube and thyroid cartilage in the act of swallowing. Great distress and discomfort, and feelings of the most miserable and desponding nature were almost constantly present, invariably aggravated by attacks of recurrent dyspnœa. I was satisfied the lateral lobes were dipping backwards, and in a few weeks or months would have irretrievably compressed the trachea, as in the case of the young Oxford man. The details are briefly these:—

Margaret H——, aged twenty-nine, from Shropshire, a cook some years in London, was sent to me on April 27th, 1874, complaining of great discomfort and tension about the neck, and dyspnœa, from the presence of an enlarged thyroid gland, that had been enlarging on both sides of the neck for two years, but especially so on the right side. She described the feeling about the neck as a smarting one, and the swelling she said "draws the neck"—i. e., made the neck feel very tense, as if tied round with something. This had caused nausea and vomiting for some ten days. She was most desponding, quite pallid, and had changed from a stout to a thin girl. The goitre was distinctly prominent on the right side, and not so visible on the left, but the

enlargement was unmistakable on both sides, and the intervening isthmus was continuous from one lobe to the other, and decidedly enlarged, taking the form of a distinct rounded, somewhat projecting tumour over the trachea. In swallowing she felt as if something were pressing on her windpipe, and the isthmus moved up and down synchronously with the thyroid cartilage, showing that it was not only in close contact with the trachea, but possibly attached to it. She was treated by a combination of the iodide and bromide of ammonium with other adjuvants, internally, and an ointment externally of the bromide of lead. She greatly improved, and the swelling on the right side of the neck became freely movable ; the trachea could be more distinctly traced from below upwards, the isthmus was decidedly less prominent, and all the other symptoms referable to the breathing got better. She took, for a short time afterwards, the bromide of ammonium and citrate of iron. Her mistress finding she was in delicate health, declined to keep her, and all the old symptoms returned with great tension and hardness of the isthmus. I told her the nature of her complaint, and stated she might now and then improve, but the cure of the attacks of dyspnœa was impossible without the removal of that portion of the tumour over the windpipe. To this she consented, and was accordingly admitted into Westminster Hospital on July 2nd, and placed under the care of my colleague, Mr. Holthouse. I had previously explained my views to him, which he perfectly comprehended, as we had discussed the matter several times.

On the 11th, after chloroform had been given, an incision was made through the integuments in the median line over the trachea, about two inches long, the superficial fascia and then the deep were divided on a director, and, finally, the surface of the tumour was exposed, which in size approached that of a flattened walnut. The isthmus on either side of this was more slender and smaller in bulk than the tumour which permitted of a strong ligature being placed on either side of it with the aid of an aneurism needle.

The isthmus was then freed to the inner side of each ligature, divided, and wholly removed, the trachea being observed to be quite free. There was not much bleeding, although several small veins ramified on the surface of the tumour. Subsequent examination showed the removed isthmus to be partly cystic in its character. for on section, one cyst especially was divided, giving exit to some fluid ; the remaining portion looked like degenerated glandular tissue.

By the 14th the wound was nearly healed ; on the 17th the ligature came away. A few days later the wound was perfectly healed, and she left the hospital, feeling no inconvenience about the trachea in breathing or swallowing. The relief afforded by the removal of the isthmus may be described as truly wonderful.

On the 16th November she called upon me in perfect health ; she had got stouter, had married, and there was not a trace of her old symptoms. The trachea could be felt uninterruptedly free from the root of the neck upwards, and the enlarged thyroid gland on either side seemed to have receded from the median line, and was less prominent.

The results in this case fully justified the hopeful view entertained of the operation, and it was not long after that another opportunity was afforded of again trying its effects, under circumstances somewhat differing and even more unfavourable.

Alice D—— , aged seventeen, a healthy-looking girl, was sent to me by my friend Mr. M. W. Chambers, of Sutherland-street, Warwick-square, with general swelling of the entire front part of the neck, especially above the clavicles, from enlargement of the thyroid gland, which, it appeared, had existed since her birth. Whilst there was an unusual fulness of the neck, there was not the great prominence observed in most cases of bronchocele ; yet the swelling was traversed by numerous enlarged and tortuous veins, through its extension behind the clavicles and pressure upon the subclavian and other deep-seated veins. This gave rise to

some facial turgescence and a ruddy complexion. The isthmus was felt continuously from the one side to the other, and was closely applied to the trachea, giving rise to occasional dyspnœa, dysphagia, laryngeal cough, and general discomfort, which had induced the girl's mother to seek advice for her. She was admitted into Westminster Hospital under my care, and put upon preparations of iodine internally, and the use of the bromide-of-lead ointment, as in the first case. She certainly improved, and the swelling became softer. But in the early part of December she had symptoms that simulated an attack of laryngitis with such extreme dyspnœa for two or three nights that the house-surgeon was called up to open the trachea. Fortunately relief was obtained without resorting to that measure, and she got better; but as it was hopeless to expect a cure, or even permanent relief, whilst this enlarged isthmus remained, I concluded that surgical interference might do more than medicine, and requested Mr. Holthouse to see her. As everything was favourable he consented to remove the isthmus. On the 15th December she was narcotised with chloroform, and as she had eaten some food shortly before, this was vomited, and during the act the prominent isthmus was seen to move up and down synchronously with the thyroid cartilage, pointing to close and firm attachment to the trachea. An incision was made one inch and three-quarters long below the thyroid cartilage, which divided a small vein that had to be tied; another, rather large, coursed upwards from right to left, which was avoided. The superficial and deep fascia being divided upon a director exposed the isthmus, which suddenly cropped up like a hernial tumour. This was found to be fully an inch wide, proportionately thick and firmly attached to the trachea. Mr. Holthouse cautiously detached it by means of curved scissors, and then passed an aneurism needle under it, armed with a double ligature permitting it to be tied in two places, as wide apart as possible. As these were likely to become detached in the event of division of

the isthmus, it was considered prudent, with my concurrence, to leave them in to slough out, and thus avoid the risk of hæmorrhage. The wound was closed and the patient conveyed to bed. Without giving the progress from day to day, it may be stated that everything went on well, the ligatures came away in reasonable time ; there was some free suppuration of the portion of the isthmus between the ligatures, and finally the wound healed. The general turgescence of the face seemed to have wholly gone, and the decided prominence of the neck became less, the circumference having become reduced from $14\frac{1}{2}$ to $13\frac{1}{2}$ inches. There was a disappearance of several of the cutaneous veins, except at the lower part nearer the clavicles. The relief to the general tension across the neck was the chief point gained, and no discomfort was experienced such as had been present before the operation. This can be well understood, on reflecting that the isthmus was then exerting a pressure upon the trachea and adjacent parts like a strong band tied around the neck.

That the results will be as favourable here as in the first case there is good reason to believe, but I should prefer as a rule a good large portion of the isthmus to be removed to simple division, as there is less likelihood of any subsequent adhesion to the trachea ; and as to the hæmorrhage from a divided portion of the gland, I think the danger to be feared from it is much overrated.

Although the enlarged thyroid gland has been wholly removed several times with success, and quite recently by my friend Dr. Fenwick of Montreal, by Dr. Wolfred Nelson of the same place, and by Dr. Beaumont* of Toronto, yet I believe that this is the first occasion in which the isthmus has been either wholly removed or divided, at my suggestion ; and the extreme importance of the subject is my excuse for bringing it before the notice of the profession. I have no doubt that this new remedial measure will receive a fair trial, and I feel confident that it will become one of extreme value and importance in a very dangerous class of cases.

Bryanston-street.

* Sir Duncan Gibb is in error ; it was Dr. Hodder of Toronto, not Dr. Beaumont, who removed a part of the Thyroid body.—Ed.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Paralysis Agitans under the care of W. Wright, M.D., Professor of Materia Medica, McGill University. Reported by Mr. HERBERT L. REDDY.

A. McD., born in Glengarry, Canada West, aged 58, a married man with eight children, was admitted into the Montreal General Hospital under the care of Dr. Wright on the 4th December, 1873. He is a large heavily built man, height 6ft 3 in., weight about 220 pounds.

Family history.—His father enjoyed good health up to his 70th year when he was struck with hemiplegia on his right side. After 3 years he partially recovered but died soon afterwards from old age. Mother was healthy. Has two brothers and three sisters, all are now living and healthy as far as he knows. Has been living near Cornwall, occupation whilst living there has been that of a farmer, formerly in the winter months he used to cut timber and drive it in the spring. He was thus employed during these months for 9 years, but he has not been so engaged for the last 19 years. In the spring whilst driving the timber he was continually subject to wet. About 8 years ago he drank pretty hard, but has been moderately temperate of late. He has enjoyed good health up to about 5 years ago, being only occasionally troubled with rheumatism in his hip and shoulder joints. About 5 years ago his right arm began to get weak and painful and constantly trembled. These symptoms gradually increased until he lost almost all power in the arm, from this it went to his left arm, and from that it has since spread all over the body ; the arms being the most affected. When he first noticed it he was working on a railroad in Nova Scotia, and thinks that these symptoms were induced by sleeping in a damp cold bed.

Present symptoms.—General trembling and weakness accompanied with nervous excitability and loss of memory. Any noise or even talking to him increases trembling. He complains of soreness and pain in the back. The pain complained of is situated over the crest of the shin, these pains occur at short intervals and are most severe when in the recumbent position. He has no pain along the spine, he sleeps moderately well, being only occasionally awakened by the pain. He is free from trembling when asleep. His bowels are generally rather costive. He walks without keeping his eyes on the ground as he would were it locomotor ataxy. The only thing noticeable in his walking is a hesitancy and sinking at each step due to weakness of the knee joint, he can walk with his eyes shut but is unable to turn very quickly. His eyesight has not been very good since he first noticed the disease. Stimulants such as brandy seem to have no effect in stopping the trembling motion as it generally does in this disease. Of late these symptoms have become so troublesome that he was persuaded to come here in hopes that something might be done. He has been under the treatment of several doctors in the country from some of whom he believed that he derived slight benefit.

Dec. 4th.—It was determined that the alkaloid hyosciamia would be likely to prove beneficial. A couple of drachms were procured from Hamburg. When it arrived it was a liquid very like sherry in appearance, it had a peculiar smell and a very bitter taste. The following prescription was then ordered.

Hyosciamia gtt i
Aq ad ℥vi
℥i tid.

Dec. 6th.—The electro-magnetic machine was used with a view of ascertaining the effect on the paralysis. The following are the results. When the poles were applied to the arms the trembling was very much increased in both

arms and head; but when applied to the legs it did not seem to affect them.

Dec. 8th.—Amount of Hyosciamia in his mixture was increased.

Hyosciamia gtt ii.
Aq ad ℥vi.
℥i. tid.

Dec. 11th.—The dose of Hyosciamia was increased from the one twenty-fourth which he was getting to the one twentieth of a drop. The trembling is evidently much benefitted already although only 7 days under treatment.

Dec. 12th.—Dose was increased to 1-10 of a drop for each dose. He has noticed that he sleeps more heavily than he did and does not dream being greatly troubled with dreams before he was admitted. His pulse which was not in any way excited when he entered was found to be 56 to-day.

Dec. 17th.—Dose was increased to 1-5 of a drop. He appears to be steadier in his movements than when admitted. This dose being much larger than could possibly have been given with the pure alkaloid it was determined that it must be a very inferior article as it was tried on a cat with the following results. One drop placed on the tongue of a cat produced no effect whatever, after a few days the cat was again caught. This time 12 drops were given without any effect. The tincture of the British Pharmacopeia was ordered.

Dec. 24th.—Tinct Hyosciami ℥i. ss.
Aq ad ℥vi.

Dec. 29th.—Was able to pull on his trowsers and waistcoat without help which he could not do before. His pulse ranged from 52 to 60.

He left the Hospital to-day. He thinks he is very little better than when admitted.

In the above case the Hyosciamia was obtained at great expense from Hamburg, when obtained it was not unlike sherry wine. The dose was increased from 1-24 of a drop to 1-5. It must have been very impure for that amount of

the pure alkaloid could never have been given without producing some effect. In this case there was little if any improvement noticed. It was determined to experiment on a cat with it. At first one drop was given and produced no effect then 12 drops and after that amount the cat was as lively as ever.

Dr. Scoresby-Jackson mentions that sheep, goats and cows can eat the leaves of the Hyosciamus plant with impunity and may it not be possible that cats enjoy a similar immunity ?

Three Cases under the Charge of Dr. Fenwick. Reported by Dr. CAMERON Assistant House Surgeon Montreal General Hospital.

The following cases are of interest from their serious nature, and favorable results.

No. 1.—Auguste De Chose, a French immigrant, a painter by trade, was working on a scaffold at Pointe-aux-Trembles on the 5th of October last ; while endeavoring to shift his position, he slipt and fell to the ground a distance of fifty-five feet. He was picked up in an insensible condition but was not conveyed to the hospital for four hours. On arriving there his right elbow was found to be very much swollen and deformed and upon careful examination, it was discovered that both the radius and ulna of the right arm were thrown backwards, neither the coronoid nor olecranon process being broken ; the dislocation was complicated however by fracture of the internal condyle of the humerus which was quite movable and gave distinct crepitation. With great difficulty chloroform was given owing to the nervous excitable condition he was in ; the dislocation was reduced and the arm placed comfortably upon a pillow in a semiflexed position. Iced lead lotion was applied over the whole arm, the joint itself being packed in ice. Opiates were administered as required. The ice was kept up steadily for five days, when the swelling had become

so far reduced that an internal rectangular splint was lightly applied. Cold lead lotions to the joint were still continued. On the 20th he was allowed up with his arm in the splint supported by a sling. Five weeks after the accident passive motion was begun. It was excessively painful at first and elicited all the grimaces and contortions so characteristic of the excitable Frenchman. A stimulating liniment was ordered, and by dint of constant frictions and the daily use of passive motion, the patient was able to leave the hospital on the 2nd of December with a very excellent arm. Very little deformity existed and the motions of the elbow joint were almost perfect. He is at work now in the city and with the exception of a little stiffness, the right arm is as useful as ever.

No. 2.—George Anderson, æt 31, carpenter. was admitted to hospital complaining of great dyspnœa and cough. He had an attack of acute pleurisy, three months before, and had been losing flesh very rapidly ever since, and had certainly become extremely emaciated. Upon examining his chest, expansion movement on the right side was imperceptible, the whole of the right chest seemed distended,although no bulging existed in the intercostal spaces. Upon measurement, the right side was found to be two inches larger in circumference than the left. Upon percussion an absolutely dull note was elicited in front up to the lower margin of the second rib ; behind the dullness was much less, being confined altogether to the infrascapular region extending to within an inch of the inferior angle of the scapula. The respiratory murmur was almost entirely absent in the dull region, and was feeble even in the upper part of the right lung. Exaggerated breathing was present on the left side. Fluid was evidently present in the right side, but the peculiar feature in the case was that the dullness extended to the lower margin of the second rib in front, while behind it reached only to below the inferior angle of the scapula. Dr. Fenwick decided to tap the right side with the aspirator, and on account of the large area of dullness in front, he

introduced the needle below, and a little to the outer side of the right nipple, at the fifth interspace. He succeeded in drawing off 54 oz. of serous fluid, which, towards the last became slightly tinged with blood. When this quantity had been abstracted, the dragging feeling about the lung became so great, and the cough so annoying, that Dr. Fenwick determined to desist. Three weeks afterwards he again used the aspirator and drew off 35 oz., which towards the end became gelatinized. The patient was kept quiet in bed for some days. Quinine, Iron and Cod Liver Oil were prescribed with a good nourishing diet. The patient become stronger, the cough less irritating, and he began to regain flesh. The right side became less prominent, measuring when he left Hospital only one inch more than the left. The breathing though still very feeble, was more distinct than before, and the dullness in front was reduced by about two finger-breadths. The dyspnœa was greatly relieved, and the night sweats completely disappeared.

No. 3 —J. L. aged 37, was admitted to hospital, complaining of obstinate constipation and great swelling of the abdomen accompanied by severe paroxysmal pains. Her face was covered with an eruption of acne.

Upon enquiring into her history it was found that she had aborted at the age of twenty-three and had flooded profusely, since which time her menstrual functions have never been properly performed. A history of syphilis before abortion was pretty clearly made out. The constipation came on gradually and she was in the habit of taking purgatives regularly for several years. About two years ago, she took as usual a dose of senna and salts, when after a very slight motion, she was seized with sudden faintness and desire to vomit; her abdomen swelled up considerably and her sufferings were severe. Since that time her bowels have never been freely moved. Castor oil seems to be the only medicine she can take at all, and its effect is peculiar; for shortly after a dose of oil she passes a small quantity of

thin semipurulent fluid containing a few small round scybalous masses; if now the dose be repeated, nothing more is passed but she immediately swells up and her sufferings become intense.

A careful examination of the rectum was made and no constriction was felt; and the long tube was passed up into the bowel without meeting any obstruction. Various purgatives were given after her admission into hospital, but with no very satisfactory result. Ordinary injections failed; the long tube was successful for a time in producing a stool which was always copious and bloody and contained a number of scybala. Oil and turpentine were used with the long tube but even they failed after a time; warm olive oil was then injected through the long tube but in a few days it too became ineffectual. At last, all injections failed and were stopped and she was put on the following treatment.

Pot. Iod. grs viii.
Ext. Sarsae fld. ℥i.
Aquae ad ℥ss. ter die.

also Ext. Bellad. gr ¼ in the form of pill night and morning.

In a few days she had a natural motion, and swelling and pain were greatly relieved. She persisted in this treatment for some weeks and finally her bowels became quite regular, her pains and discomfort gradually disappeared, and strange to say the acne, which had lasted for eight years and which had been growing worse and worse till she was quite disfigured, began to fade away, and she left the Hospital quite a respectable-looking woman. The connection between acne and a constipated state of the bowels was in this case very clearly exemplified.

There may be some doubt entertained as to the cause of the disappearance of the acne; from the history of Syphilis it may possibly have been due to the effect of the Iodide of Potassium.

Reviews and Notices of Books.

A Guide to the Practical Examination of Urine. For the use of Physicians and Students. By JAMES TYSON, M.D., Hospital Lecturer on Pathological Anatomy in the University of Pennsylvania, &c., &c. With a plate and numerous illustrations. Philadelphia: Lindsay & Blakiston, 1875.

Dr. Tyson has already published two carefully written and useful works, "The Cell Doctrine," and "An Introduction to the Study of Practical Histology," and the present hand-book will supply the want which many practitioners must have felt, of a work, which in a moderate compass might give sufficient information on this important subject. Although we have already valuable works on the Urine, yet some are too large for ordinary clinical use, while most of the smaller hand-books, with the exception of the admirable "Guide to the Examination of the Urine," by Dr. Wickham Legg, are too meagre in detail to be really trustworthy. Useful as Dr. Wickham Legg's work has been found by many a practitioner and student, yet we think that in the present manual, which is almost as convenient in size, will be found much useful information, which Dr. Legg, from the nature of his work, was obliged to omit, and which can only be obtained by consulting the more bulky volumes on the subject. The author gives the modes of approximate estimation used in Germany, drawing the details of them from the treatise of Hoffmann and Ultzmann, and many of the cuts of urinary deposits are from Harley's valuable work. The part devoted to urinary deposits is well and carefully written, and the illustrations are numerous and well executed. Altogether, we may safely say that in the 177 pages, of which this little work consists, will be found more useful information and practical instruction than in many a more pretentious volume, and to the busy practitioner and student it will be invaluable.

Cyclopedia of the Practice of Medicine. Edited by DR. H. VON ZIEMSSEN Professor Clinical Medicine in Munich Bavaria, Vol. 1. Acute Infectious Diseases by Professor Liebermeister, Professor Lebert, Dr. Haenisch, Professor Heubner and Dr. Oertel. Translated by Drs. Fitz, Putnam, Harlingen, Whittaker, Schauffler, Delafield, Bridge, Satterthwaite, Stimson, Emerson and Normand Smith. Albert H. Buck, M.D., New York, Editor of American edition. 8 vo. pp. 708, N. Y., William Wood and Company 27 Great Jones street, 1874.

In the circular announcement which we received from the publisher and which we noticed editorially in the August number of this Journal we were under the impression that Vol. 1 of the Series would embrace the subject of Public Hygiene, and diseases of special trades and professions to be edited by Prof. Giegel and Drs. Hertz and Merkel. A change has however been effected as Vol. 1 which is before us consists of a series of exhaustive papers on "Acute Infectious Diseases." This volume is under the Editorial conduct of Hugo W. von Ziemssen Professor of clinical medicine at the University of Munich, Bavaria. In the Biographical sketch of Prof. Ziemssen which appears on the first pages of this volume we notice that he has contributed largely to medical literature not only as a writer in Virchow's Arch: but that in 1862 he founded the Greifswald Medical reports which he edited for two years when he responded to a call from Erlangen where he maintained the position of Clinical Professor of Medicine up to the spring of last year when he assumed the clinical professorship in Medicine and director of the City General Hospital in connection with the University of Munich.

The first paper is from the pen of Professor Liebermeister the subject being Typhoid Fever. The author gives a general introduction to the infectious diseases, in this he admits the difficulty of tracing infectious diseases to the existence of organized disease germs as it cannot be re-

garded as among well authenticated facts that all infectious diseases depend for their origin on special disease germs. This statement is alone theoretical, but reasoning from analogy we are led to believe in the existence of these germs although scientific investigation has failed to satisfactorily demonstrate them. Nevertheless it must be admitted that a peculiar feature of infectious diseases is the fact that they resemble the effects produced by a poison proper—that is a constancy in the relations between cause and effect. This differs in a marked manner from all other diseases. The poison of Typhoid fever always develops Typhoid fever. No other disease can result, by subjecting an individual to exposure to that poison. On the other hand several persons are exposed to cold or wet feet. One will develop a tonsillitis, another coryza, a third bronchitis, and yet another diarrhœa or dysentery. The author clearly proves his position and shows that no amount of stench from decomposing animal or vegetable compounds will generate disease. That they favor its extension may be true, but unless the germs of the disease in question be there, no disease of what may be called infectious, can originate de novo. The author observes, "We have been convinced that in spite of the pro-
"phecies and premature reports, the investment of Metz
"was never able to produce a single case of typhus fever,
"inside or outside the city, or to transform typhoid fever,
"which prevails there so frequently, to a possibly higher
"potency, *i.e.*, to typhus fever. We have gradually reached
"the conclusion that it is only when the specific germ of
"the disease exists by itself, or has been introduced, that
"those anti-hygienic factors become active and may then
"be capable of occasioning an enormous extension of the
"disease. The germ, however, is not produced by spon-
"taneous generation." In this respect the author is in accord with Dr. Budd of whose opinion he thus expresses himself:

"This opinion that the poison of typhoid fever is propa-
"gated continuously and never originates autochthonously

" was first established by Budd. It has gained ground as " yet but slowly, but there is every prospect that it will in " time become the prevailing opinion."

With regard to treatment the author adopts what he terms " systematic treatment," which consists in giving the patient, if seen before the ninth day, from two to four doses of eight grains each of calomel in the course of a few hours; to this one or two doses are added the next day. From the time of admission the temperature is regularly taken every two hours during the day, and in severe cases during the night as well; whenever the temperature in the axilla reaches 102°, or 103° in the rectum, the cold bath of the temperature of about 68 degrees is given and maintained for ten minutes. If the condition of the patient is such that six or more baths are required during twenty-four hours, the patient is given on the second evening from 22 to 37 grains of quinine. Usually the quinine is administered in doses of $7\frac{1}{2}$ grains, repeated every ten minutes until the decided effect of the drug is observable by the rapid fall of temperature; should this occur, and that the temperature in the rectum shows about 100°, the baths are dispensed with for twelve hours or longer. Forty-eight hours after the first exhibition of quinine a similar dose, or perhaps a smaller one is given; if, however, the temperature still maintains a high rate the second dose of quinine is made larger, reaching 45 grains. If this is sufficient, and that the temperature maintains a lower standard, then the same dose, or a smaller dose of quinine is repeated every second night as long as the continuance of the fever seems to demand it. In very severe cases where 45 grains of quinine seems insufficient, recourse is had to digitalis on the morning after the exhibition of the quinine. During the next 36 hours, from 11 to 22 grains of powdered digitalis is given gradually, the state of the pulse and temperature to be carefully watched, and to be our guide in the continuance or remission of the drug. " If it should happen, " as it very rarely does that no sufficient remission is secured,

" by the use of digitalis and quinine, we may still have " recourse to veratria, which sometimes succeeds in suffi- " ciently controlling the subsequent course of the fever."

There is one observation to which we must allude. The author remarks, " No educated physician now-a-days, " expects a cure from the use of chlorine-water or the " mineral acids." From the remarkable results of Dr. Chambers in his treatment of typhoid fever in the London Fever Hospital, it would appear that his success depended not so much on medication or combatting the disease by antipyretics, so much as by the support of the patient, feeding him with food that he can assimilate, and inasmuch as there appears to be an absence of the natural gastric juice, the patient is supplied with an artificial digesting fluid ; so that although the acids are not given as curative agents they act beneficially, and experience in our own hands is such that we are satisfied with the results. We are unable at present to give any statistical return of our own hospital, but we may observe that so far as we are personally concerned we have never given a single grain of calomel at the outset, nor at any stage of the disease. The necessity of properly feeding the patient, and of unremitted attention in this particular is fully recognised. The author states with reference to wine and spirits that they are admissible at any stage of the disease, even during the height of the fever, but he does not draw attention to the fact of stimulants lowering the temperature to a marked degree in some severe cases. The use of milk as an aliment for the typhoid fever patient is recognised, although not so fully as we should expect ; on this point the author observes, " The fact " is that mucilaginous barley water, thin oatmeal gruel " and the like, combined with strong meat broth, constitute " about the most desirable diet. * * " In addition to " these things, the patient may, if he likes, have milk, but " only when boiled and reduced with water, seltzer water, " tea, coffee, and the like."

We have next from the pen of Professor Lebert, treatises on Relapsing fever, Typhus fever, and Cholera. The next

paper is on the Plague from Professor Liebermeister, to which is appended a short notice of the Black Death. Dr. Haenisch gives a short *resumé* on Yellow fever. Dysentery is treated of by Prof. Heubner, and Diphtheria by Dr. Max Oertel. This latter gentleman has already published a series of articles on this subject. We regard this undertaking as a most important one, and we think that English-speaking practitioners of all countries owe a debt of gratitude to the translators for the very excellent manner in which they have performed their work. To the publishers we must observe that their task has been most thoroughly executed. The paper is of superior description, the type large, clearly impressed, and the whole work well got up. This, the American edition, is under the Editorial management of Dr. Albert H. Buck of New York, who secured the aid of eleven gentlemen in different parts of the United States in the translation of this volume. In commending this work to our readers we may observe in conclusion, that no physician who is desirous of keeping *au courant* with the subjects to be treated of in these volumes can afford to be without them. As we go to press we have received vol. 2, which we will notice in a future number of this Journal.

Periscopic Department.

SURGERY.

On a Case in which a Foreign Body remained for Five Years in contact with the Iris, without exciting Sympathetic Ophthalmia in the other eye.

In the *Annales d'Oculistique*, July and August, Dr. Savary (du Mans) describes a case which occurred in his own practice, that of a French lady, aged fifty who had met with a severe fall five years previously, her foot tripping upon a hard road. She was much injured by falling upon some flints. The left eye was seriously injured, but the

exact nature or seat of the hurt was not very clearly made out, although she underwent much active treatment at the time ; for four months there was continued pain, at the end of which the eye, although it retained its shape and form, was quite blind. After a period of three years, the pain returned, and Madame R. sought further advice at the hands of a surgeon, who detected the presence of a foreign body within the eye, and who made an ineffectual attempt, though in what way is not clear, to remove it. After another fifteen months, and after much pain, Madame R. applied to Dr. Savary, who found the pupil of the left eye fixed by adhesions, and blocked up by pigmented membrane, through which the opaque lens could be made out. Within the anterior chamber was a grayish-white substance, adherent to the iris, and in contact with the cornea in front. This substance filled the lower part of the chamber, and the cornea over it was hazy, and presented the mark of an old horizontal scar. The globe was soft and painful on pressure, and the ciliary congestion and intolerance of light were excessive. The right eye was in every respect normal.

The diagnosis was that, in all probability, a fragment of stone was imbedded in the anterior chamber, although it might well be that the case was one of cyst of the iris from excessive exudation ; in either case some interference was called for, but there would very likely be a difference of opinion as to whether some attempt should be made to find and to remove the foreign body, or whether an abscission or even the removal of the entire eye was advisable. It was determined to search for the foreign body, although the dangers and difficulties of operating upon a globe, which was disorganized by prolonged inflammation, were obvious, and not underrated. The attempt was, however, made, and without chloroform. The cornea was incised at the periphery, and a foreign body, encrusted with exudation, was readily detected, and extracted with the forceps. There was no prolapse of iris, and but a small amount of

bleeding into the inner chamber. The pain subsided in a few hours, and when the dressings were removed the following day, the wound was quite healed, and without undue reaction. At the end of the week the eye was quite quiet, and the patient was convalescent, and able to leave the hospital free from pain, and from all inconvenience, the eye, of course, remaining quite blind. The question of determining the existence of a foreign body is surrounded with difficulty, and the writings of our foremost ophthalmic surgeons give very uncertain advice as to the proper course to pursue when there is only a probability that a foreign body has remained within an injured eye. There are some who would wait the appearance of symptoms of irritation, while there are others who would at once remove an eye which was injured to a degree which would interfere with vision, quite apart from the existence of a foreign body within it. Probably these two extremes of treatment are unwise, but it must be allowed that even at this time very many cases of sympathetic ophthalmia are met with which might well be prevented.—*London Medical Record*, Oct. 28, 1874.

Case of Hernia under the care of MR. HULKE. Acute Strangulation of a Bubonocele—Limited Gangrene of Intestine—Peritonitis—Herniotomy—Death.

The strangulation was here very acute. If medical aid had been procured on the night of the accident, and the rupture been operated on immediately if irreducible by taxis, very probably the patient might have been saved. The postponement of the operation till the third evening was fatal. The propriety of replacing intestine with a small gangrenous spot, questioned by some authorities on hernia, and sanctioned by others, was justified by the agglutinations which took place between the time of the operation and the patient's death, and which would have effectually hindered

the escape of the intestinal contents into the peritoneal cavity.

A groom, aged fifty-eight, two years ruptured, riding late from the races, felt his truss break and his rupture instantly slip down, upon which he was directly in extreme pain. When he reached home no doctor was sent for, as it was night, but sundry domestic measures were tried. He spent the night in great suffering, and in the morning a medical man was fetched, who perseveringly tried the taxis without success. On the third evening the patient was brought into the hospital. An oval tumour, of the size of a small hen's egg, exquisitely tender and very painful, filled the right inguinal canal. His belly was tympanitic, and very tender and painful. He almost incessantly retched. His pulse was very small, feeble, and rapid. Chloroform was immediately given, and herniotomy done without repeating the taxis. The sac and tissues outside it were purple from congestion. On opening the sac about four drachms of fetid greyish flocculent serum escaped, and a loop of almost black small intestine came into view. At one spot the intestine was attached to the bottom of the sac by a recent adhesion, and when this was gently separated a small grey gangrenous patch was apparent. The protruded gut and sac were washed with an aqueous solution of carbolic acid of the strength of 1 per cent., and after dividing the constriction, which was very tight and situated at the internal abdominal ring, the gut was cautiously returned into the belly, the bend of the loop—where was the gangrenous patch —being left at the internal ring, in order that if the gangrene should have implicated the whole thickness of the gut the fæcal contents might, when the slough exfoliated, escape outwardly and not be shed into the peritoneal cavity. With the same object a piece of lint was placed in the external wound to prevent its closing. A large hot linseed poultice was put on the belly, and opium was ordered. Retching continued, and he died at one o'clock p.m. next day.

On examining his body, signs of general peritonitis were found—most intense near the rupture. The strangulated gut which had been replaced was already so fixed by adhesions to the abdominal wall that had the sloughy spot given way—it was lying directly at the ring—no extravasation could have occurred into the belly.

Three cases of Strangulated Epiplocele—Herniotomy—Recovery.

These cases illustrate a fact well known—viz., that strangulation of omentum produces symptoms not unlike, and often as severe as, those of a strangulated enterocele. The first case also furnishes an example of the formation of a spurious hydrocele by the accumulation of serum in the scrotal part of the sac, which had become shut off from the inguinal part by adhesions, probably induced by the pressure of the truss. Such cystiform collections of serum in hernial sacs no longer communicating with the belly are believed to be not very infrequent, and to occur less rarely in femoral than in scrotal ruptures; in a very popular surgical text-book they are stated to be very rare. In this (No. 1) it will not escape notice that the adherent omentum in the scrotal loculus of the sac was free from those marks of obstructed circulation which characterised the strangulation of the part above in the inguinal loculus of the sac. Its extensive vascularised adhesion to the sac made it very independent of blood-supply through the proper omental arteries, and moderated the congestion which would have otherwise followed pressure upon the omental veins. The preservative influence of vascularised adhesions to the sac in maintaining the life of omentum in a tightly strangulated hernia was very conclusively proved in a strangulated femoral rupture, where two adherent pieces of omentum were found living, and but slightly disordered, whilst the remainder of the omentum, non-adherent, was dead and crepitant with gas. When omentum is actually gangrenous, there is an almost unanimous agreement that it is better to cut it away than to leave it in the sac to be thrown off; and no doubt this is

the best practice, since its exfoliation is always attended with much suppuration, the products of decomposition and the pus infect the surrounding tissues, the sac itself often necroses, and puriform œdema often spreads widely in the scrotum or in the thigh along the intermuscular planes of connective tissue. This untoward course more often happens in the old and feeble than in young and vigorous subjects. Again, where the extruded omentum retains its normal structure, all agree that the proper course is to replace it; but in the third case, where the extruded omentum is only freshly congested and œdematously swollen, and this not beyond a reasonable expectation of recovery, and where it has undergone merely those chronic alterations—viz., thickening and induration—to which all long-extruded viscera are liable, no uniformity of practice prevails, some surgeons returning omentum into the belly which others would unhesitatingly cut off. Where there is the slightest doubt of the recovery of congested œdematous omentum, and where chronic induration and thickening exist in more than a very slight degree, experience proves that retrenchment of the parts thus altered yields better results than their replacement. Again, with respect to the method of removing the omentum, differences of practice prevail. Some surgeons, fearing a difficulty in dealing with the possible hæmorrhage, secure the neck of the extruded omentum with a strong ligature, beyond which they cut it off; whilst others simply cut off the omentum through the living or but slightly altered part, and secure separately all vessels which bleed. This was Pott's practice and it is to be preferred. Whichever method is adopted, one point of practice is important—not to cut through the omentum too close to the internal abdominal aperture, because, as soon as the neck of the omentum is no longer held by the constriction, there is a strong tendency for the stump to be retracted, and it may be pulled entirely inside the belly, where, if bleeding should perchance happen, the vessels will be beyond reach, and where, if the omentum has been tied in mass, the gan-

grenous stump beyond the thread may infect the peritoneal cavity, and the ligatures which have been brought out at the surface through the wound will conduct inwards the inflammatory products from this into the belly. These are not imaginary dangers. Hæmorrhage, alarming because inaccessible, and even fatal, has followed the replacement of omentum in the belly, where the divided edges have spread out and some unsecured vessel has leaked; and a sloughy stump, still encircled by its stout ligature, has been found nearly as high as the navel, with the ligatures soaked in ichorous discharges stretching between it and the wound.

Case 1.—Strangulated Inguino-Scrotal Epiplocele—Spurious Hydrocele—Herniotomy—Sac Opened—Recovery.

A carpenter, aged thirty-seven, was admitted into Clayton ward on July 16, 1874. For twenty-four hours he had been retching almost incessantly, and for three days he had not passed a stool. He had, he said, been ruptured for many years, and he had worn a truss latterly with the rupture partly down. The rupture had once before been strangulated, four years previously, and reduced by taxis in this hospital.

The right side of his scrotum was distended with a granular, knotty mass, painless and not tender when handled; whilst above this the inguinal canal was filled with a hard, painful, tender swelling, beyond which a fulness could be traced above the internal abdominal ring. The taxis and other measures had been perseveringly tried. It appeared imprudent to repeat them; chloroform was therefore given, and an incision was made over the external abdominal ring and upper part of the scrotum, which laid bare the sac. This was extremely thin and very transparent. It adhered very intimately to a layer of omentum which could be distinctly seen through it. On cautiously cutting through this omentum a large smooth cavity was opened, which contained serum only, and which was shut off by firm adhesions from the inguinal part of the sac. This latter contained omen-

tum only, which was congested and swollen, and contrasted strongly with the unaltered omentum of the lower loculus. The adhesions were separated; the neck of the sac notched; the finger passed through it into the belly, in order to make sure that there was any entanglement of bowel by the sheet of omentum gathered down to the ring; and the extruded piece of omentum was retrenched. The wound united prematurely, and slight suppuration followed. On July 24 he left, convalescent.

Case 2.—Strangulated Inguino-Scrotal Epiplocele—Herniotomy—Sac Opened—Recovery.

A labourer, aged fifty-eight, was admitted into Clayton ward on the evening of Angust 16, 1869, with symptoms of strangulated hernia. The left side of his scrotum, and corresponding inguinal canal, were occupied by an oblong fluctuating swelling, in which knotty lumps as of hardened omentum could be felt. This swelling and his belly, which was tympanitic, were tender and painful. He had constant nausea, and often vomited. The pulse was quick, small, and weak. He had been ruptured, he said, for twelve years, and he had usually, but not always, worn a truss. The morning before, he had foolishly omitted to put it on; the rupture swelled. and symptoms of strangulation immediately setting in, medical aid was obtained. Two surgeons had assiduously plied the taxis during four hours, and not meeting with success, had applied ice, which also failing, they advised that he should be taken to the hospital.

Chloroform was given, and the taxis was gently repeated for a few minutes, when, reduction being impracticable, herniotomy was done without further delay. It was necessary to open the sac; it contained about two ounces of bloody serum, and a large mass of knotty omentum, most of which was tied to the sac by old vascularised adhesions. These were separated, the omentum retrenched, its bleeding vessels were separately secured, and the stump was left at the external ring; the constriction, which seemed to be

constituted by the neck of the sac, having been incised. This part of the sac had been somewhat detached from the fascia transversalis, and pushed inwards by the efforts at reduction by taxis, and a subserous space had been made, into which had the sac (here deprived of its natural support) given away, its contents might have slipped, and so, disappearing from the surface, there would have been a simulated reduction—the extruded viscera all the time lying outside the peritoneal cavity. The wound suppurated; he made a good recovery. The first stool was not passed until the tenth day after the operation.

Case 3.—*Strangulated Femoral Epiplocele—Herniotomy—Recovery; Six Months later, Symptoms requiring an Examination of a Knot in the Groin, which proved to be a Cystiform Distension of the Hernial Sac.*

The wife of a small tradesman, aged about thirty-five, long ruptured, who had worn a badly fitting truss, which sometimes allowed the rupture to slip down, was seized after breakfast, on August 7, 1871, with violent pain in the lower part of the belly, and tenderness and pain in the rupture, which were soon followed by retching. The rupture was found to be irreducible. Next day, when seen by Mr. Hulke with her medical attendant, the rupture formed a swelling of the size of a walnut, very painful, and so tender that she could not bear it to be touched. She still retched frequently. Her bowels had twice acted slightly since the accident. The taxis had been perseveringly tried; it was gently repeated under chloroform, and, reduction being impracticable, herniotomy was done. The sac was as thin as tissue-paper. It contained only a small piece of omentum, the reduction of which was prevented, after incision of the Gimbernat's ligament, by a little thread crossing its neck within the sac. The wound was dressed with an aqueous solution of sulphurous acid, and opium was given her. She recovered quickly.

On January 22 following she began to be troubled with pinching and griping in the belly, not, however, so severe

as to wholly prevent her from attending to her shop. On the sixth day obstinate retching supervened, and it continued when she was seen two days later by Mr. Hulke. From the beginning of this attack till the seventh day her bowels had acted daily. She had now in the right groin, in the place of the former rupture, a small, very hard, and extremely tender and painful knot, from which tenderness and pain extended upwards into the belly.

The symptoms were taken to mean inflammation of the old sac and omentum, which after the operation had probably become agglutinated to the inner surface of the internal femoral aperture. The groin and belly were fomented; one grain of opium was given every six hours, and she was restricted to small quantities of milk, to which a little lime-water was added. Under this treatment the retching ceased, and the tenderness of the belly lessened; but the rupture remained hard and tender. Three days later the retching returned. The old hernial sac was now explored: the skin adhered intimately to it; it had an almost cartilaginous toughness, and was about a quarter of an inch thick; it contained only about a drachm of serum. Opium was again given. The symptoms subsided, and she recovered.—*Medical Times and Gazette.*

Case of Fracture through both Rami of the Lower Jaw, Treated by External Incision and the wire Suture. By Thomas Annandale, F.R.S.E., Surgeon to the Edinburgh Infirmary, and Lecturer on Clinical Surgery.

In September last, I was asked to meet Dr. Moodie of Stirling in consultation on the case of G. C., aged 18, who had received a severe injury to his face from a railway waggon. A few days previously to my visit, the patient, when following his employment of a clerk on the railway, was knocked down, and the wheel of a waggon passed over the lower part of his face. Great swelling of the whole face followed the injury; and Dr. Moodie, who was called to see

him, at once recognised a fracture through both rami of the jaw. Careful means were used to keep the fragments in position, but without success, and I was accordingly asked to see the patient.

An examination determined a fracture on the right side of the lower jaw at the junction of the angle and ramus, and one on the left side through the ramus, immediately above the angle. The body of the bone was uninjured. By a little manipulation and elevation of the body of the bone, the fragments could be brought nearly together ; but, when the force was removed, the fragments at once separated, and the body of the jaw fell downwards so as to leave the mouth open and fixed in this position, as the patient had no control over the movements of the bone. There was a small wound on the right side of the cheek anterior to the seat of fracture, which was discharging pus freely. The experience of the treatment which had already been adopted having shown that some special means would be required to keep the fragments together, it was decided that the patient should be brought to town and placed under my care in the infirmary. Accordingly, he was admitted into my wards on September 28th ; and, on the following day, I placed him under the influence of chloroform, and proceeded to secure the fragments together by means of a wire suture. Owing to the position of the fractures, it was found impossible to drill the jaw from the inside of the mouth, and I therefore made an external incision about two inches in length over the seat of fracture on the right side, exposed the fragments, and having drilled them, brought them together with strong silver wire. A similar incision was made over the left side, and the fragments were drilled and treated as on the right side The fragments on this side could not be brought accurately together, but they were secured as nearly so as possible. After the operation, there was still a slight tendency for the body of the jaw to become depressed, and, in order to counteract this, a piece of soft gutta-percha was introduced between the molars of the upper and lower jaw on the left

side, and held in this situation until it took a mould of the parts and became hard. It was then allowed to remain in this position, and a chin-bandage was applied to keep the jaws steady. The suppuration, which had existed before the operation, continued for several weeks,and from time to time small portions of necrosed bone separated, and were removed by the mouth. On November 13th, the wire on the left side being quite loose, was removed ; and, on December 5th, that on the right side also became loose, and was removed. Both wires had been twisted on the inner aspect of the jaw at the time of the operation, and consequently both were removed by the mouth. After the removal of the second wire, the suppuration almost ceased, and the patient was dismissed on December 9th. On January 6th, he returned to show himself, and there was then only a small superficial wound on the right side. The movements of the jaw were excellent, and the patient could masticate with ease. When the jaws were closed together, there was a slight lateral displacement of the lower one ; but with this exception, and a slight swelling of one cheek, the parts were natural in appearance.

Remarks.—Fractures of the lower jaw have been occasionally treated by means of the wire suture (see Hamilton on *Fractures and Dislocations*, fourth edition, p. 118) and I have myself used this method in several cases of comminuted fracture of the body of the bone, drilling the bone through the mouth or through the wound which already existed. Mr. Bickersteth of Liverpool (*Medico Chirurgical Transactions*, vol. xlvii) has suggested a method of securing the fractured ends of this and other bones by means of a drill, and has given a most interesting acccount of several cases in which it was successfully adopted. The employment of special external incisions, as in the case related, has rarely if ever been practised in connection with recent fractures of the lower jaw. The objection to them is the resulting external cicatrix or cicatrices which, although not of so much consequence in the male, as the whiskers will

usually completely cover them, must cause some deformity in the female. For this reason, I would only advocate an external incision or incisions in cases which cannot be successfully treated by other means. In the removal of the tongue, or portions of it, and in some cases of tumour of the jaw, I always now bring the ends of the divided jaw together by means of the wire suture ; and my experience of this method is, that it is safe, efficient, and easy of application. Since writing this, Mr. Mason of St. Thomas's Hospital has been kind enough to direct my attention to the ingenious method of employing the wire suture in bringing the end of bones together, practised by him (*Medico-Chirurgical Transactions*, vol. liv). His method allows the wire to be easily removed at any time, and is, therefore, to be preferred to that which has usually been employed, should the case admit of the needle being passed in an oblique direction through both ends of the bone.—*British Medical Journal.*

The Use of Sulphuric Ether as an Anæsthetic. By THOMAS KEITH, M.D., Surgeon for Ovarian Disease to the Royal Infirmary, Edinburgh.

I ought ere now to have communicated to the JOURNAL my experience of sulphuric ether. I have given it in ovariotomy and other prolonged operations or whenever it was necessary in feeble patients to give an anæsthetic, ever since the beginning of 1867, when I doubt if anyone used it in this country except myself.

In giving an account in the *Lancet*, August 1870, of my second series of fifty cases of ovariotomy, the following remarks were made.

"In Case LII, the excessive chloroform vomiting during the operation, and for some time after it, so prostrated the patient, that her chance of recovery was lost. In the early cases, I have frequently had to deplore the injurious effects of chloroform vomiting in ovariotomy, and so evident was

the mischief occasioned by it in this unfortunate case, that I have since then entirely abandoned the use of this agent in ovariotomy and other severe and tedious operations, and now use instead anhydrous sulphuric ether, made from methylated alcohol, administered through Dr. Richardson's apparatus. The oftener ether has been given, the more I like it. How chloroform so quickly superseded it is a marvel. The anæsthesia of ether, though at first slower, is extremely steady and quiet. There is infinitely less vomiting than with chloroform, and, instead of the pallid face and feeble pulse of chloroform, the patient, after a long operation, is put to bed with a flushed face and a great surface-circulation. In cases of non-adherent tumour, vomiting is, I fancy, of little consequence; but, where there has been extensive adhesion, and when oozing may be set up by it after the wound is closed, vomiting can be no trifle, and may turn the scale. Sulphuric ether has now been used—at first with a small proportion of chloroform—in 53 cases of ovariotomy (of which 46 recovered), and something has been gained from the use of it. I would put in a word for the old anæsthetic. Chloroform certainly saves the surgeon five or ten minutes of time, and a little trouble. Had it never been heard of, I doubt if humanity would have suffered from the want of it."

This opinion was looked upon here as heretical, and, being adverse to chloroform, was attributed to personal motives; yet after four years, I have little more to add than simply to endorse it.

The case above referred to was at the time published in the *Edinburgh Medical Journal*, and I felt so certain that chloroform vomiting killed the patient, that in the case which came next I took to sulphuric ether in a sort of despair. It was not new to me, for in 1847–48 we all looked upon ether as a good practical anæsthetic. When I began again to use it, a small proportion of chloroform was added; for the best English ethers were found to be very impure, and it was rare to get one with a specific gravity under .750

At length, Dr. Arthur Gamgee put into my hands a perfectly dry ether made from methylated spirit. It is manufactured by those conscientious chemists Messrs. Macfarlane. Its specific gravity is .715 to .717. It cost me three shillings a pound of twenty-four fluid ounces, and it answers admirably for local anæsthesia. For the last six or seven years, nothing but this ether has been used, except twice, when bichloride of methylene was given, and once, a few months ago, when operating at Newcastle, when chloroform was used. The apparatus employed has been the mask of Dr. Richardson's apparatus, with a sponge fixed in the bottom. It might easily be improved; but it answers its purpose well enough, though there is great waste with it. For many years, the ether was administered by my brother Dr. Keith; of late, it has been given by Dr. Foulis, who will at an early day give his observations upon it. There has been no difficulty in bringing patients under its influence. It is given freely, and plenty of air gets in with it. We have not observed the excitement which is said to accompany the inhalation of ether. It is always taken by the patient in bed, and no one is allowed to be in the room but the administrator and nurse.

But the great advantage of ether over chloroform in such operations as ovariotomy lies in the almost complete absence of after-vomiting. Vomiting with an open wound is of no consequence. With chloroform, after-vomiting was the rule, and, in the afternoon and first night of an operation, the nurse required to be always at hand with a basin for the vomiting. With ether, after-vomiting is quite the exception, and it is never severe or continued; while some patients sleep on, and often remain two or three hours without moving after being placed in bed.

My confidence in sulphuric ether as the best practical anæsthetic we yet have does not thus diminish. Its low specific gravity must make it less dangerous than the others. It is not perfect, but it answers my purpose better than any other. It saves my patients from the misery of after-vomit-

ing, and, in ovariotomy, from the chance of losing their lives in certain cases of bad adhesion from bleeding being set up by the sickness after the abdomen is closed. Whether of itself it diminishes the risk of operations, I cannot tell; but I am inclined to think that it does often save the feeble ones. This much I can say, that ether has now been given in one hundred and thirty-five cases of ovariotomy, and in two cases of successful removal of the uterus for fibro-cystic tumour. In every case, the anæsthesia was profound, many of the operations were very tedious, and, of the last sixty-six operated on, sixty have recovered.

In the beginning of 1848, Sir James Simpson wrote in the *Edinburgh Medical Journal* an elaborate statistical paper, showing that the mortality after amputation of the limbs, especially of the thigh, performed in hospitals under ether was much less than before ether was known. The results of upwards of three hundred amputations were obtained by circulars sent out in the usual way. This paper is worthy the attention of those interested in the statistics of the more recent results of operations in hospitals. Either chloroform has increased the mortality of hospital operations, or, in the early days of anæsthesia from ether, the results were better than at a later period. It may be also well to note that, when this paper was reprinted some years afterwards the words ether, etherised, and etherisation were in almost every instance displaced by the words anæsthetic, anæsthetised, and anæsthesia. Perhaps the results of operations were then considered too good for ether, which latterly came to be given the merit of being only an improvement on the mandragora and other rubbish of the middle ages.—*British Medical Journal.*

A Suggestive Incident which occurred during Etherisation. By Furneaux Jordan, F. R. C. S., Surgeon at the Queen's Hospital, and Professor of Surgery at the Queen's College, etc.

Every surgeon, it may be presumed, desires to use the safest and most effectual anæsthetic. Those who prefer

chloroform believe that, in expert hands, it is safe, and has fewer drawbacks than ether. Conceding much on this point, we must not forget that, while narcotisation is everywhere a daily, an almost hourly need, its induction does not always fall into experienced hands. If, then, anæsthetics must be frequently administered and administered with variable degrees of judgment and experience, a growing amount of evidence points to ether as the safer anæsthetic.

Recently, I was about to place a ligature on the femoral artery for popliteal aneurism. The patient having been etherised by my colleague Mr. Priestley Smith, who is very familiar with the use of ether, I made the usual incision in the integuments. The patient showed no sign of pain; but I had scarcely completed the incision, when the limb was seized with a marked tremor of the muscles. To clean a large artery with a sharp knife (and I believe, with the late Mr. Syme, that to dissect an artery with a sharp knife is less mischievous than to contuse it with blunt instruments) in a violently trembling limb is not a desirable proceeding. At my desire, more ether was given, but the tremor continued unabated. I again desired that more ether should be given. Mr. Priestley Smith's immediate and significant reply was this: "The man is as much under the influence of ether as it is possible to put him." With the assistance of firm pressure on the muscles of the thigh, I completed the operation; and I may add, that the man has (fourteenth day) done perfectly well.

From the incident just related, a few useful conclusions may be drawn. The most important is this: the profoundest anæsthesia of ether is not so deep as to prevent reflex muscular tremor from following an incision in the skin. It is probably much less profound than even ordinary degrees of chloroform narcotism. In short, it would seem that, with common care, a patient cannot be put dangerously under the influence of ether. Nevertheless, the anæsthesia of ether is sufficient for the vast majority of operations. Ether, then, notwithstanding certain drawbacks, should claim our first attention.

The chief drawback of ether is, that it cannot be readily administered by timid persons. Anybody can pour a little chloroform on to a handkerchief, and hold it over a face. Not everybody can resolutely pour out a large quantity of ether, resolutely and closely bind a towel round the mouth and nose, and resolutely disregard the most violent muscular contortions. But these are difficulties which very attainable knowledge and experience will surmount.

In a few operations where the skin needs to be freely incised, and especially where such incisions precede delicate and anxious manipulations, the deeper influence of chloroform may be desirable. Quite recently, the practice of beginning with a little chloroform, and then giving ether, answered extremely well in the hands of my colleague Dr. Sawyer in the case of an old man, from whose tarsus I removed a carious patch by means of a large trephine, after a free crucial incision in an "Esmarchised" limb.

In this note, it is far from my intention to discuss the general question of anæsthesia; but a few words, and a few only, on chloroform. I entirely coincide in the opinion that every kind of "apparatus"—everything containing "valves"—should be scrupulously avoided. Every effort should be made to prevent, what so readily occurs, a deeper anæsthesia than the particular operation, or stage of operation requires. Timid Chloroformisation is, especially in the early stages, equally mischievous. Timidity in the administration of chloroform means much more chloroform, longer time, and greater danger. Again: conjunctival insensibility is too rough a test; it may come too soon. Much worse, it may come too late. In children, the conjunctiva is often insensible in a few moments, especially if there be anything on the stomach. As regards food in the stomach, in hospital practice it is common for mothers, when they are instructed to bring children without breakfast (or other meal) to give them some outrageous compound—beer and fruit, apples and pears, being the commonest—under the impression that these are not a

meal, and that the poor child must be "strengthened for the operation. Occasionally, as in old imbibers, the skin is ready for the knife before the eye tolerates the finger. The deep pinch of an artery-forceps at the seat of the operation is a better test.—*British Medical Journal.*

MEDICINE.

On the Action of Amyl-Nitrite on the Vascular Tonus and on the Heart Beat.—Dr. W. Filehne finds as most other experimenters have done, that the inhalation of amyl-nitrite causes a considerable dilatation of the blood vessels of the head and upper parts of the body. From a review of former experiments he concludes that the mechanism of this dilatation (*i. e.*, whether it is due to an action on the vessels themselves or on their nerve centres) is still a matter for investigation. He adduces as an argument against the direct action on the vessels the fact that only some of these are dilated, and that the limits of the area of vascular dilatation are pretty sharply marked. If, then, the vessels were affected by the local action of the nitrite it would be difficult to explain how neighbouring vessels, through which the same blood was passing, should re-act so differently. Again, if the vessels were directly affected, those of the lungs, by which the absorption occurs, ought to be most dilated. But having made a window in the chest wall of a rabbit, sparing the pleura so as to avoid entrance of air, Filehne saw no change of colour of the lungs to follow inhalation of amyl-nitrite, although the vascular dilatation in the vessels of the ear was extremely marked. He considers the question is settled by the following ingenious experiment:—The sympathetic was divided on one side in the neck of a rabbit. The vessels of the ear on that side dilated. The upper segment of the divided nerve was then irritated by an induction current of such strength that the vessels were brought into a condition of mean contraction, so as to equal in size those of the sound side. Amyl-nitrite was then

administered through a tracheal fistula, so as to avoid the spasm of respiration produced by its contact with the nares. Immediately the vessels of the sound side dilated, while those on which the divided nerve was being irritated remained unaffected. By this is shown that the action of amyl-nitrite is not on the vessels, nor on the nerves, but on the nerve centres, The effects of amyl-nitrite on the heart was found to be different in frogs and in mammalia. In both classes of animals a *large* dose caused slowing and feebleness of action. A small dose in frogs produced no effect, but in mammalia (men, rabbits, dogs) a very considerably increased rapidity was noticed. That this was due to a paralysing action on the vagus centre in the medulla-oblongata was shown by a somewhat similar experiment to that noticed above. The author divided both vagi in the neck of a rabbit, and then Faradised the lower end of one of them with a current of such strength that the rapidity of pulsation of the heart was the same as before the operation. Then amyl-nitrite was administered, and, although the effect on the vessels of the ear was well marked, no increase in the cardiac pulsations occurred. The difference in the effects of the drug on frogs and mammals is explained by the absence of a *constant* inhibitory action of the vagus on the heart in frogs. If in these animals the vagi be divided, no increase in the number of pulsations occurs, while such an increase always occurs in warm-blooded animals, showing that, in them the vagus is constantly in action. The increased rapidity of respiration which follows inhalation of amyl-nitrite is supposed not to depend on a direct influence exerted on the respiratory nervous centres, but to be due secondarily to the alterations in the vascular tonus and the cardiac action. A paralysing action on the vaso-motor centres of the head and neck and on the vagus centre, similar to that caused by amyl-nitrite, is produced in men by mental emotion, such as shame, or timidity, which is accompanied by blushing and increased frequency of pulse. For interesting remarks on this similarity of effect, and for a criticism on former experiments, we must refer to the paper itself.—*Pfluger Archiv.* IX. 470. J.M P.

CANADA

Medical and Surgical Journal.

MONTREAL, MARCH, 1875.

THE BEAUPORT LUNATIC ASYLUM REPORT AND GENERAL PARALYSIS OF THE INSANE.

We have not been favored with a copy of the report of the Lunatic Asylum at Quebec, but are enabled to draw attention to that document from extracts which were published in an evening paper.

In the medical part of the report it appears that a large number of the patients are classified as incurable. The report states that the number of insane admitted during the years 1872-3, above the age of sixty years, seems to be very large as compared with the sane population of the same age, and which "proves that society has largely taken advantage of our institution to rid itself of cases of senile dementia." A great many are sent to die, when from poverty or their own violence, they become a burthen to their friends. The chance of benefit is greatly diminished by this system of neglect, as it is unquestionably the experience of all observers, that insanity of whatever kind, is to be treated solely, with a chance of benefit, in the early stage of the disease.

In alluding to general paralysis of the insane, the report goes on to say, "This painful disease (general paralysis) "offers few hopes of cure. Out of 100 cases we can barely "count three or four who have recovered their reason or "their original health." It would be interesting to know what treatment was adopted, in the three or four cases of recovery here reported.

General paralysis of the insane has, until quite recently, been regarded as an incurable malady. The disease might

in some cases be prolonged, but was sure, sooner or later, to claim its victim. So constant is this the result, that in the prognosis of a case of general paralysis, it has been customary for the physician to state that it is a mere question of time as the disease is incurable.

From the recorded observations of Drs. L. Fox, George Thompson, and other workers in the field of investigation, it would seem that there is every prospect of reducing the treatment of this disease to a certainty, or at least to the same probability of cure which is observed in other maladies. In the *British Medical Journal* for Oct. 24, 1874, will be found an article, or rather the record of two cases of general paralysis successfully treated by the persistent use of calabar bean. Dr. Crichton Browne who reports these cases, is Medical Director to the West Riding Asylum, and Lecturer on Mental Diseases to the Leeds School of Medicine.

On referring to the January No. of the *Journal of Mental Science* published by the Medico-Psychological Association, and edited by Drs. Maudsley and Clouston, there will be found a most important and highly practical paper "on the Physiology of General Paralysis of the Insane, and of Epilepsy," from the pen of George Thompson, L. R. C. P., London; Medical Superintendent of the Bristol Lunatic Asylum. In commencing this paper Dr. Thompson remarks "That if we would have reliable facts upon which to base our theories and practice, such facts must be the result of observations upon the living rather than upon the dead subject."

After alluding to the unsatisfactory results from even the most minute investigations of diseased structure, he points to the value, and the important revelations to be derived from the proper and combined use of the various resources in the hands of the physician. The tracings made by the sphygmograph, the condition of the vessels of the optic disk as observed by the ophthalmoscope, the temperature of the body taken and carefully noted, all these means combined,

without fail, indicate the condition of the patient, and point to the proper method of treatment. We transcribe the theories and facts as given by Dr. Thompson in the article referred to.

The Theories.—I use Dr. Long Fox's words and my own. (I.) That the organic change which exists in the very early stages of General Paralysis consists of a diminished calibre of the vessels, which is of the nature of a persistent spasm. 2. That this spasm, though persistent if left untreated, is, if recognised early, amenable to remedial means. (3.) That the lesions found after death are not the cause, but the result, of early organic changes that need be only of temporary duration.

The Facts.—(1) That the tracings of the pulse taken at the wrist by the sphygmograph in cases of General Paralysis, when untreated, is precisely similar to that found in a person in good health who had been exposed to a cold bath for the space of a minute. (2.) That the vessels of the retinæ and optic discs are thin and attenuated, and the discs themselves are void of their natural pink tint. (3.) That General Paralytics are more frequently the subjects of cerebral syncope than persons labouring under any other disease of the brain. (4.) That in the early stages of General Paralysis the temperature of the body is lower than in health, and the skin of persons so affected is then in that condition known as the *cutis anserina*, resembling that condition seen in the cold stage of ague, in cholera, or in the rigors preceding a febrile attack. (5.) That by the administration of such remedies as are known to be antagonistic to spasmodic action, the pulse-tracing may be brought back to a healthy form, the natural appearance of the retinæ may be regained, the temperature of the body may be raised to the normal standard, and then the skin will assume its original smoothness.

The appearances of the optic discs and retinæ, as revealed by the ophthalmoscope have been before alluded to. In the June No. 1873, of this Journal, we published a paper from the pen of H. R. Bigelow, Esq., of Boston, Mass., in which that gentleman gave the results of his ophthalmoscopic observations on thirty-one cases of general paralysis. Of these, eleven presented evidence of what the writer called atrophy of the disc, in thirteen there was neuro-retinitis, and in seven the discs were congested. Those cases in which atrophic changes were observed were of long standing, but those in which increased vascularity was found were in the early stage of the disease. He also noticed that the rapidity with which the atrophic changes occurred or succeeded the stage of congestion bore no relation to the

general progress of the disease, but seemed to depend upon local causes.

This opens up a new field for observation, and we trust that before long we will be able to record the honest results of the many workers on this interesting subject. With regard to treatment Dr. Thompson states that to be hopeful of success the cases must be early recognized, if the treatment is commenced late in the attack very little benefit is to be expected. During the stage of excitement the calabar bean is to be withheld; he says he has given the drug until excitement, or even an epileptiform seizure has been brought on. But then he stops its use for a time. The dose usually administered is a quarter of a grain of the extract repeated three times a day. He does not appear to place entire reliance on the use of the calabar bean, but remarks that in his hands it has fulfilled all reasonable expectation.

THE MAYORALTY OF THE CITY OF MONTREAL.

We have much pleasure in announcing the almost unanimous election to the Mayoralty of this city of our friend and brother practitioner William Hales Hingston, M.D., L.R.C.S., Edin. Dr. Hingston has occupied a prominent position in our city as one of its leading surgeons. After graduating at McGill University in the year 1851, he went abroad and pursued his studies in Scotland and on the Continent of Europe. On his return to this country he commenced private practice and soon afterwards received the appointment of Physician to the St. Patrick's wards of the Hotel Dieu hospital. Since then he has been unremitting in his devotion to the practice of his profession, selecting surgery as his first love, we might say his only love, as the doctor appears to be a confirmed old bachelor. We hope and fully believe that this selection is most judicious at the present juncture, and trust that his Worship will be aided and seconded by his Council in the general ameliora-

tion of the sanitary condition of the city. The effect of the existence of epidemic disease amongst us, which is not to to be denied, has acted most injuriously on the trade of Montreal. It should be the aim of every good citizen to endeavor to aid the authorities in the many needed improvements, and we feel confident that the Mayor will exercise a spirit of determined will in carrying out necessary reforms.

Our late Mayor deserves the thanks of his fellow citizens, for the firm manner in which he insisted on establishing a small-pox hospital, and although there were those who questioned his right to act in the premises, his action has been fully endorsed by public opinion. We trust our present Mayor will, in like manner, ignore any childish babbling in respect to needful measures, and assume responsibility in enforcing improvements which have reference to the general sanitary weal. We give below an extract from His Worship's speech, (taken from the GAZETTE) which we commend to the serious consideration of all.

If, in conclusion, we find that the mortality in certain unhealthy and overcrowded courts, or in certain crowded districts of this city, rises to 40, 50, 60 or 70 per 1000, and that in other more open, airy and well ventilated localities the rate of death falls to 10 or 20 per 1,000, what is the inference? Were it possible to obtain those data, some surprising and startling facts would be obtained. There are too many persons living in the houses for the size and cubic space afforded. But not only is individual overcrowding a cause of disease and death. Persons acquire property, perhaps large enough on which to build an ordinary house, but on this property they place several tenement houses, and instead of having breathing space in the rear, they erect a second row of houses as tenements, when even a wood shed would be considered too much; in some places there are rows of houses three stories high, with a second row of the same height not fifteen feet apart. The system of covering every available space with tenements, which become so many centres of disease, should not be allowed, and the only way would be that the erection of houses with insufficient means of ingress for pure air, should vitiate any contract between landlord and tenant, and deprive the former of any legal right to collect rent as certainly as would a defective roof, or looped and windowed raggedness. While other cities share in this overcrowding and stifling, they must yield to this in its pre-eminence in small-pox. Montreal seems to be the nidus of that loathsome malady. While efforts are being made, on the one side to stamp it out by means of vaccination, re-vaccination and isolation—measures which the scientific world are united in recommending—vaccination is not practised among a considerable portion of the inhabitants, and isolation

is the comparatively rare exception. It required but twenty deaths to make 1,000 in one year in this city from small-pox alone (more than twice as many as there were deaths from consumption), yet only 53 of that number died in the hospital specially set apart for their reception. It will be for you, gentlemen, to say whether persons labouring under this loathsome malady will be permitted to become centres of disease and death ; or whether they shall be removed to places suitably prepared for them, where danger of infecting others will be lessened.

I have not time to more than touch upon the vexed question of vaccination. If science has settled any one question in medicine, it has certainly pronounced in a definite manner in favor of the practice. But "doctors differ" is an old aphorism, and a portion of the citizens of Montreal is becoming educated in a disbelief in the power of vaccination for good, and a belief in its powers for evil. I should wish to direct attention to a fact pregnant with interest. There were 981 deaths during last year from small pox. Of these, 827 were among the French Canadian portion of the population. Why this increase ? this frightful mortality among that section of our fellow-citizens so remarkable for their frugality, temperance and cleanliness ? The answer may be found in the circumstance that it is they who have been chiefly, I may say, solely influenced by the writings of those who are opposed to vaccination, and who in consequence, refuse to permit their children to be vaccinated, while the others as a rule, are vaccinated, and frequently revaccinated, especially in view of an epidemic. What is the practical inference to be drawn from what I state ?

Ready Method of Estimating the Fat (Cream) Present in Milk.

John Horsley, F. C. S., *Chemical News*, describes a simple method of determining the amount of cream in any sample of milk, as follows : The milk is agitated in a graduated glass tube, with its bulk of ether, for four or five minutes. Alcohol is then added, equal in volume to the milk employed, and the whole well shaken together for five minutes. The tube is then placed in a vertical position, and allowed to remain at rest, when the oily matter will quickly rise to the surface, and its amount can be read off at once on the scale, and the percentage thence readily computed.—*Detroit Review of Medicine.*

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Valedictory address to the Graduates in Medicine and Surgery, McGill University, Delivered on behalf of the Medical Faculty at the Annual Convocation held in the William Molson Hall of the University on Wednesday 31st March, 1875. By WILLIAM OSLER, M.D., L.R.C.P.L., Lecturer on Institutes of Medicine.

GENTLEMEN OF THE GRADUATING CLASS.—The pleasant duty devolves upon me of offering you, on behalf of the Faculty of Medicine, congratulations on your present success, and good wishes for the future. For four years you have been occupied in mastering the elements of your Profession in the Lecture room, Hospital ward, and Dispensary; and now, having satisfied the requirements of the University, the long looked for degree has been conferred, the coveted title obtained. The time has arrived for you to put in practice what has been taught you here, and your success will depend, in great measure, upon how you have taken advantage of the opportunities afforded at this school.

At the outset it is necessary for you to bear in mind that your professional education is by no means complete; you have, as it were, only laid the foundation, and, let me say, Gentlemen, while it is to be hoped that a good and promising foundation has been laid under the guidance and instruction of others, it rests with yourselves what the superstructure shall be. The credit of your College, the honour of that Profession to which it is our privilege and pleasure to belong, your advancement in life depend on the course you now

mark out and follow for yourselves. You must not be content to rest on your oars. The canons of the church, the formulas of the law, are to a certain extent unalterable, are stereotyped. Not so medicine. It is preëminently a progressive science, day by day receiving fresh acquisitions, opening up new fields for investigation, and it will be your duty, as far as in you lies, to keep pace with this progress. During the first few years, while waiting for practice, you will have ample leisure to work up more thoroughly the various branches of your Profession, and keep posted in the latest medical literature. Cultivate in these early years studious habits. It happens too frequently that after the severe work of the final session, books are thrown aside, and rarely reopened. A glance at the bookshelves of any professional man—Cleric, Lawyer or Physician, will enable you to judge better than anything else, the estimate he has formed of his calling. Let it be also an ambition to add your mite to the store of medical knowledge. Every one can do something; and the routine of general practice affords many cases worth reporting or commenting upon. Our Medical Journals greatly need the coöperation of the profession throughout the country, and in thus recording your experiences you will benefit yourselves, and help to raise the standard of Canadian Medicine. Hitherto, Gentlemen, your relations have been chiefly with your teachers and with each other; now these relations are changed, and you will have to deal in the future with patients and fellow practitioners. On the first point it would not become me to say much. Remember, however, that every patient upon whom you wait will examine you critically and form an estimate of you by the way in which you conduct yourself at the bedside. Skill and nicety in manipulation, whether in the simple act of feeling the pulse, or in the performance of any minor operation will do more towards establishing confidence in you, than a string of Diplomas, or the reputation of extensive Hospital experience. Formerly, in the days of apprenticeship, the medical student was brought

daily in contact with patients of all classes, now it is too often the case that Hospital practice is the only variety seen, and the sudden change to private practice is found rather trying. Time soon remedies this, and every case successfully treated adds to the confidence you feel in your own powers. Fortunately, the first patients are among the poor, who are less exacting, more easily pleased, and more disposed to make allowances for a young practitioner than the upper classes. You have of course entered the Profession of Medicine with a view of obtaining a livelihood ; but in dealing with your patients let this always be a secondary consideration. It has been well said, "No one should approach the temple of science with the soul of a money-changer." Let the spirit of our Medical moralist, Sir Thomas Browne, whose Religio Medici I would commend to your perusal, actuate you. He says "Let me be sick myself, if sometimes the malady of my patient be not a disease unto me ; I desire rather to cure his infirmities than my own necessities ; where I do him no good methinks it is scarce honest gain, though, I confess, 'tis but the worthy salary of our well intended endeavours." Upon your relations to fellow-practitioners, allow me to offer you a few words of counsel. It is a fact well known to you all that the great opprobrium of our Profession, especially in the small towns, is the constant rivalry and distrust of one another displayed by its members. That men whose high calling ought to bind them closely together, and whose interests are so much in common, should thus disagree, is a matter deeply to be regretted ; and, I would urge upon you, during your, let me hope, prosperous career, to do all that may lie in your power to remove this scandal from our midst. A little watchfulness when commencing practice may prevent it entirely in your own circle, and you may thus have your brother practitioners as friends not enemies. The evil, I regret to say, is generally traceable to the patients. You will not be engaged in practice many weeks before one seeks you who has been under the care of some other medical man. He or she

gives you a statement of the case, blames the former attendant, and expects you to sympathize and add your measure of censure. If you do, it gets talked of, and sooner or later reaching the ears of your rival practitioner forms the nucleus of a serious quarrel. Make it a rule always to discourage the tales of a patient about another medical man; and even when you think he has made a mistake, be slow to judge. Often too you may feel aggrieved, and think yourself wronged or slighted; instead of giving vent to your feelings, on such occasions, restrain them, and remember the injunction "If thy brother trespass against thee; go and tell him his fault between thee and him alone; if he shall hear thee, thou hast gained thy brother."

A word now on the Temperance question, which is becoming an all important one in Canada for us as medical men. That alcohol is a medicine, and a valuable one, nobody not blinded by prejudice denies; but bear in mind that it is a dangerous remedy, and one that should not be, as it is, so generally recommended by practitioners.

There are many conditions, for which alcohol is now freely prescribed, quite amenable to treatment by other medicinal agents combined with a careful regulation of diet. When you do order it, give positive directions about the quantity, and the length of time it is to be continued. Inattention to these matters, especially in patients suffering from any of the neuroses, is occasionally the starting point of dangerous drinking habits. Medical men, more than any other, have opportunities of observing the commencement of such habits, and care should be exercised, lest this tendency be fostered by the form of treatment employed. No class of individuals can better wage war against the indiscriminate drinking habits of the public than the Doctors, and the laity will hearken to their admonitions on this point; even when the exhortations of the Divines are treated with contempt. Example, Gentlemen, is better than precept, and by becoming teetotallers yourselves, you will neither injure your health nor damage your professional prospects.

Too many valuable lives in our Profession are sacrificed yearly to intemperance ; and, now is the time for you, with minds still "wax to receive and marble to retain," to lay the foundation of good sober habits.

Those of you from Ontario, and intending to practice there, will, I suppose, present yourselves to the Medical Council for examination. This much abused institution is, I believe, doing good service to the Profession of that province, and it is to be regretted that such an examining body does not exist for the Dominion. In a country like this where the power of granting degrees in Medicine is possessed by all the sectarian Universities, it is but just that the profession at large, should have some guarantee of the proficiency of the graduates ; and this they can only obtain by combining together, as in Ontario, and examining every man for his license. The examinations are thorough, conducted with fairness, and such as no McGill man who has attended to his studies need fear. Just as Edinburgh men sometimes fail at the Primary and Final Examinations before the Royal College of Surgeons, so occasionally will men from the Universities of Canada be rejected at the Ontario board. As an independent examining body it may yet do much towards elevating the standard of Canadian medicine by making the necessary qualifications of a higher order than they are at present. Hitherto it has not afforded much protection against illegal practitioners, but now, as the finances are in a better condition, the Council is prepared to take action, and intends to prosecute unlicensed men. One hears the assertion not unfrequently made that the existence of the Board is prejudicial to the interests of our Medical school, as it hinders Ontario students from coming here. I do not see how this can be the case. The Ontario student, whether he attends the Toronto schools or McGill, has the same examinations to pass, one before his University, the other before the Board. It entails an additional expense, and it is this, not the examinations with which all the students find fault.

In conclusion, gentlemen, let us hope, that wherever you go, you will maintain the good name of your Alma Mater, and add to the lustre which already surrounds her. Bend all your energies to the attainment of proficiency in your calling; work while it is yet day, that when your night comes it may be said of you as of Gerard de Narbon, one of Shakespeare's Physicians."

"He was in what he did profess, well found."

Nelaton's Method of Resuscitation in Cases of Syncope in Anæsthesia produced by Chloroform. By G. P. Girdwood, M.D., M.R.C.S., England; Professor Practical Chemistry, McGill University.

In No. XXVI vol. 2 of the London Lancet for Dec. 26, 1874 is a letter from Mr. George Pollock on "The danger of Anæsthetics" called forth by the report of a death from the administration of Bichloride of Methylene. This letter provoked a correspondence upon the relative safety or danger in the use of different anæsthetic agents, wherein some of the writers extol the advantages of sulphuric ether, and nitrous oxide gas, or of mixtures of these agents with chloroform and draw contrasts to the disadvantage of chloroform as an anæsthetic, whilst others maintain that chloroform if properly used is as safe as ether, and lay the blame of death in fatal cases either to carelessness in administration or to impurity of the preparation used. There is doubtless much to be said in favour of and against all anæsthetics and every one speaks with more confidence of the particular anæsthetic he is in the habit of using and with which he is most familiar. If it were possible to arrive at exact statistics of the number of cases in which anæsthesia is produced by, and the number of deaths resulting from the use of each anæsthetic it would be possible to draw some sound conclusions, more especially if the quality of the agent were also correctly ascertained. As it is, the statistics are obtained only from the limited number of severe operations

in which these agents are employed and it must remain always a difficult point of determination, how far the death is due to the action of the anæsthetic, and how far to the operation, or as death has occurred not unfrequently almost before the inhalation has commenced how far to mental causes which would exist independently of the anæsthetic. I am informed that during a period of 25 years experience in the Montreal General Hospital only two cases of death have been attributed to the use of chloroform. The method of adminstration being on a towel folded into a cone ; and allowing of free access of atmospheric air. I am strongly in favour of this mode of administration as against all other forms of complicated apparatus which often frighten nervous patients. That chloroform has a decided tendency to depress the heart's action is clearly admitted, especially when taken for a long operation, and hence its danger ; for comfort and convenience of administration it is superior to all anæsthetics yet introduced. It does, however, occasionally cause syncope and sometimes even death by reason of the depression of the heart's action, and consequent failure of supply of blood to the brain.

Hence it appears to be admitted generally that chloroform is more dangerous than ether, the next most useful anæsthetic, but the objections to the use of ether to a great extent counterbalance its greater immunity from fatal results. The amount of muscular activity is so great as often to materially interfere with the operator, and render the operation more dangerous, especially in cases where careful dissection is required, an example of which is given by Mr. Furneaux Jordan in the *British Medical Journal* for January 30, 1875, where he experienced great difficulty in ligating the femoral artery from muscular tremor, the result of the use of ether.

In the same Journal Dr. Thomas Keith of Edinburgh laudates ether at the expense of chloroform, on the ground that in ovariotomy cases the use of chloroform is followed by prolonged vomiting which is not the case with ether. It

must be a difficult question to decide how much of the vomiting is due to operation, how much to chloroform. The essential conditions for the safe administration of chloroform are, to allay nervousness at starting, to avoid by ample dilution irritation of air passages,to produce the effect required with a minimum quantity of chloroform and in as short a time as safety will allow, to watch the pulse and respiration and stop at once if any untoward symptom occur, and if such should happen to have recourse at once to remedial measures.

In spite of all care cases of syncope even fatal will occasionally happen.

In the British Medical Journal for August 22, 1874, is a description of the application of Nelaton's method of resuscitation from syncope during chloroform narcosis, by J. Marion Sims, M.D. where the patient was restored after prolonged and repeated efforts only, but the process was eminently successful. In the Canada Lancet, page 165, vol. 7 a case is recorded of the successful treatment of a case of chloroform narcosis by this process by Dr. Wade of Cobourg. J. D. Brown, Esq., F.R.C.S., England, in a paper read before the South Wales and Monmouthshire branch of the British Medical Association, July 5, 1871, gives a record of five recoveries from dangerous syncope, under the influence of chloroform, by similar treatment. I can add one more case in proof of the utility of this plan for recovering patients from syncope caused by chloroform.

During my tour of duty in the month of January last as attending physician to the out patient department of the Montreal General Hospital, a patient, a young man of muscular build, whilst holding a wedge accidentally put his thumb over the end of it, and the man who was driving the wedge brought down his 24 lb sledge upon the thumb crushing it and rendering amputation necessary, applied for relief.

Dr. Cline administered chloroform during the operation. There was but one artery requiring ligature, which, whilst

I was seizing it, stopped bleeding. On looking round, the patient was making attempts to vomit and presented the appearance of a man suffering from syncope, his pulse imperceptible. I at once lowered his head which had previously been slightly raised, and in a few minutes the pulse returned. I completed the operation but whilst so doing, some one raised the patient's head again,this was succeeded by a second faintness more severe than the former, his pulse again became imperceptible and the respiration stopped, I now raised the foot of the couch as well as depressing his head. Respiration was reestablished by a few movements of artificial respiration by Dr. Cline and sprinkling with cold water,to which stimulant the respiratory muscles responded. Dr. Ross who being in the house I had asked to come to my assistance, when I found the feeble condition of the patient, now came, but pulsation and respiration were fast returning, by keeping the inclined position "tete en bas" for an hour after, he completely recovered. On coming to his senses he informed us that this was his first day's work after an attack of typhoid fever, his weak condition from this cause together with the excessively painful nature of the injury, had probably been the predisposing causes to syncope in this case.

I think that had this proceeding been adopted in some of the cases wherein death has been put down to the effect of chloroform the fatal cases would have been much fewer, and that with this process at hand, and easily applied the risk of fatal results in the use of chloroform is much reduced. The chloroform first inhaled passes into the circulation and is carried by it to the sensorium, which is the first part affected, and long before the whole of the blood in the system can be charged with chloroform, by degrees the different senses are overcome, voluntary muscular irritability is allayed and reflex action of the voluntary muscles is the last of the cerebro spinal functions, to be arrested, and now only the phenomena of organic existence remain. If the action of the anæsthetic be continued the functions

of organic life also are arrested and then death ensues, but if the brain can be supplied with a little blood the functions again return, and one by one the suspended vitality is restored to the senses.

It may be well to consider, whether this gradually increasing feebleness of the heart's action does not point to the medulla oblongata as the source of the movements of the heart, for when the body is inverted it is not only the vertebral and carotid arteries which send oxygnated blood up to the brain, but also the venæcavæ and the spinal plexus of veins which send hither venous blood. Galvanism and other forms of actual stimulants to the hearts action have not been found to produce the same effect as the simple inversion of the body.

Hospital Reports.

Medical and Surgical Cases Occurring in the Practice of the Montreal General Hospital.

Case of Fracture of the base of the Skull.—Recovery. Under the care of Dr. Ross. Reported by Mr. J. Dorland.

D. P. a young man nineteen years of age, employed in a tobacco factory was brought to the General Hospital on the 9th of February at noon in a semi-conscious condition, bleeding profusely from both ears and from a wound on the right cheek. He had been working on the hoist when a trap-door fell and jammed his head against the sill. He lost a considerable quantity of blood before he reached the hospital. Upon examination, it was found that blood flowed more freely from the right than from the left ear. Blood was effused under the scalp above and behind the right ear, forming a large tumor about three inches square, quite tender to the touch.

There was tenderness also behind the left ear, but no extravasation. No depression of the skull or external fracture could be found. There was a cut two inches in length along the right malar bone ; the right eye was ecchymosed, and the whole face bruised and swollen. The extremities had lost neither sensation nor motion ; but the muscles of the right side of the face were paralyzed and there was consequently absence of expression on that side and a drawing of the mouth and face towards the left side. He had complete power over the orbicularis muscle, and no difference could be seen in the dilating and contracting of the pupils. He had vomited once while being conveyed to hospital. Temperature 98 °, Pulse 56, Respiration feeble, quite rational but drowsy and inclined to sleep.

One drop of croton oil was ordered, to be repeated if necessary ; his hair was clipped, and ice applied to the head; milk and beef tea to be administered liberally. At 2.30 p.m., he vomited again ; at 7.30 he complained of great pain above the right ear ; blood oozing constantly from that ear. Temp. 99 3-5 °, Pulse 68, Resp. 30.

Feb. 10th. During the night, his bowels acted freely ; passed his water at the same time without difficulty. Very drowsy, yet when aroused, is quite rational. Has great difficulty in blowing his nose owing to the paralysis of the right side of his face. Slight oozing from both ears. Great pain is complained of in the right temporal fossa and over the left mastoid process. Right eye is quite closed ; Temp, 99 1-5 ° ; Pulse 66, Resp. 24.

He was ordered the following mixture.

Potas. Bromid. ℥ii.
Spts. Chloroform. ℥ii.
Tinct. Hyosciam. ℥iv.
Aquae ad. ℥vi. ℥ss. every third hour.

11th Feb. Blood has ceased to ooze from the ears ; the right eye is less swollen: he has power to open and close

the lid. Pain above the ears continues and becomes so severe at night, that it prevents him from sleeping.

12th. Bleeding from the left ear began again during the forenoon; none from the right. Paralysis continues, he retains power over the orbicularis; the eyes move together and the pupils contract equally, seems less stupid and drowsy. If a watch be held close to his right ear, he can hear nothing; but at a distance of two inches from the left one, he can distinguish the ticking.

15th. During the last two days bleeding has continued from the left ear, and to-day there was oozing from the right ear as well. The pain which prevents him from sleeping is sharp and steady and is referred chiefly to a point a little above and behind the right ear. The deafness is increased; watch can be heard now at a distance of only half an inch from the left ear. The left pupil is dilated and its action in contracting and dilating is irregular. He has double vision; in looking at one object he sees two, in looking at two, he sees four. The false image is less distinct and is situated to the right of, and on a slightly higher level than, the true one. There is paralysis of the left sixth nerve for the left External Rectus is powerless; this gives a fixity to the left eye, causing the appearance of internal strabismus in the right.

21st. The swelling and pain have been gradually disappearing; the inequality in the pupils still continue. Since the swelling about the right eye has disappeared, he is unable to close that eye completely. A blister was applied behind the right ear.

March 2nd. Bleeding from the ears has entirely ceased; the pain in the head is much less, although at times it becomes still very severe. He has at irregular intervals suffered from pain in the eyes with intolerance of light, the right eye being always more afflicted than the left.

16th. His general health rapidly improved, the paralysis of the face became much less, the pupils equal and the double vision less marked, till on the 16th he was able to

be removed to his home. Throughout the case, the temperature ranged between 98° and 100°, having on only one occasion reached 100 2-5°. The pulse ranged between 48 and 76; the respirations between 30 and 16, the pulse-respiration-ratio varying between 1:2—and 1:4.

Foreign body in the bladder removed by the Lithotrite.—Under the care of Geo. Ross, M.D., Prof. of Clin. Med., McGill University.

A. D. was admitted into the Montreal General Hospital on the 10th March complaining of peculiar symptoms relating to the voiding of the urine. He states that in the upright position, if he attempts to make water, the stream of urine is almost instantly completely checked,accompanied by a sense of occlusion, and a desire to strain or force to overcome the obstruction. Then on lying upon his side he is able to pass water freely in a large stream. It appears that about two weeks and a half ago he and two other companions got upon a "spree," and the latter, by way of amusement, took to introducing beans and other foreign bodies into the urethra of our patient. He was quite intoxicated at the time and remembers nothing about it, but only surmises this from what he saw on becoming sober, and from what he was told by the others. The symptoms mentioned were observed by him the following morning and have been present ever since. There could be no doubt that he was suffering from the presence of some foreign body in the bladder—its nature, of course, it was impossible to know. A short-beaked bulbous sound was at once introduced by Dr. Ross, and very soon touched the foreign substance. The contact of the sound could be be very distinctly felt by the examining hand, and a moderatley loud click could be made audible to those standing round the bed. It was determined to remove it by the lithotrite the following day, the intention being, if it were found small enough in the diameter grasped, to withdraw it entire through the urethra,

or else, if necessary, to crush and remove it in pieces, (for it must be remembered that the patient had no positive knowledge of the nature of the body). Accordingly, on the 11th of March, a moderate quantity of urine having been purposely retained for some hours, a closed lithotrite was passed into the bladder, and the object sought readily made out lying behind and to the left side. This was then seized in the jaws of the instrument and raised free from the bladder-walls. On making simple pressure upon the male blade it was found that the substance was readily compressible, and not hard or friable. It was therefore squeezed pretty firmly, and the lithotrite withdrawn. It was found to contain the whole compressed substance of a large white bean. It was evident that this had been grasped in the long diameter, and fortunately so, for if seized across its middle it would probably have refused to be extracted whole, and if broken, would almost surely have left some fragments behind which might have given rise to some further annoyance before being got rid of. He was discharged the next day, a happier and a wiser man.

Correspondence.

TORONTO March 25th, 1875.

Editor of Canada Medical and Surgical Journal.

DEAR SIR,—As a member of the Canadian Medical Mutual Benefit Association, and feeling an interest in its welfare, I wish to draw the attention of the members of the profession who are still without its pale, to the fact that it is a real live institution, and that its members are sparing no pains to ensure its success.

It is destined to supply a much felt need, and ought to be the means of drawing the profession together in one strong bond of unity; and we should feel a common inter-

est in supporting and building up an institution which in its way is likely to be productive of so much benefit.

As one applicant expresses himself "He does not think it has come into existence one moment too soon, as especially in the outlying sections of the country the medical men cannot hope to provide a competency for those depending upon them in case they were suddenly taken away, and the organisation presents an opportunity which should render the profession in general grateful to its originators."

Nor need we go to the newly settled districts to find members of the profession who need the benefits the Association affords, as is evidenced by the fact that an appeal is about being made to all the registered practitioners in Ontario to raise a fund to relieve the straitened circumstances of the family of the late Dr. Lizars of Toronto.

On the ground that the late Doctor was a registered practitioner, this action cannot be called in question, and ought to receive our hearty encouragement and liberal support. But on the other hand it should not be forgotten that this is establishing a precedent, which for the same reason should have been established long ago, and must for a similar reason follow every such lamentable occurrence in the future, as the death of a regularly qualified medical practitioner.

But we would scarcely like to place ourselves in such a relation to each other, or in such a position with the world, as a course of this kind would necessarily and inevitably involve.

We could however, by building up and keeping well managed and supported such an association have an amount which would be very acceptable to the representatives of a deceased member, and which we could claim as a right and just due, and not have to feel towards our brethren that it was doled out to us as a charitable pittance, and to the outside world, that such is the result of the efforts of a lifetime spent in unremiting and unrequited toil.

The Association furnished every qualified practitioner with a blank form of application, and while we are pleased with the readiness with which a good number promptly filled up and returned them, still there are many others from whom we have yet to hear, and probably in most cases from indifference. To such we would urge that you give the matter your earnest attention and forward your applications.

Yours truly,

(Signed) MEMBER.

Periscopic Department.

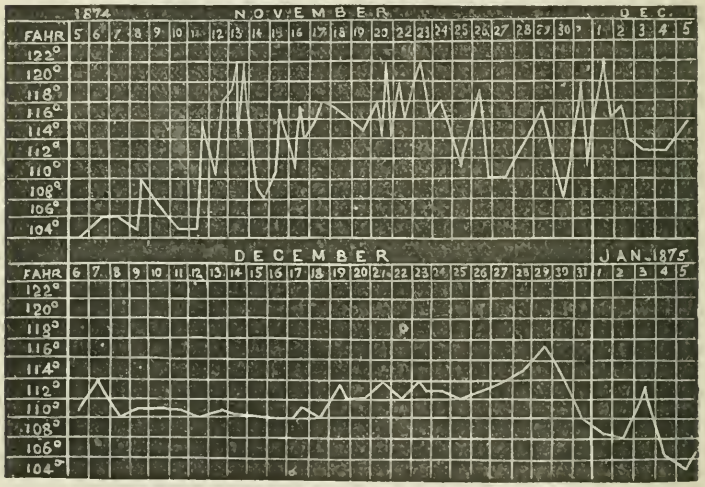
MEDICINE.

Clinical Society of London.—Remarkable Case of High Temperature.

Mr. J. W. Teale then read notes of a case of Remarkable Elevation of Temperature (to 122° F.) after injury to the spine. The patient, a young lady, was thrown in the hunting-field on September 5th, 1874, by her horse taking a standing-jump at a five-barred gate, and, catching his feet in the topmost bar, falling heavily upon its rider. She staggered to her feet after momentary unconsciousness, and was seen by Mr. Teale within five or six hours of the accident. She was then in a state of collapse, and complained of pain in the back; there was fracture of the left fifth and sixth ribs. A few days after her temperature was 101°, but became normal in the space of a fortnight. The fractured ribs united; but although pain and tenderness still existed over the sixth dorsal spine, she retained perfect power in her limbs. She was then seen by Mr. Pridgin Teale, of Leeds, and the conclusion arrived at was that there was subacute inflammation of ligaments. On October 3rd the temperature rose to 100°, and then to 101°; still tenderness and pain; sleep was disturbed, and she now suffered from

jerkings of the legs. In spite of the application of ice-bags to the spine, the temperature slowly rose, reaching 105° on Nov. 3rd, and 106° on the 6th. It was then thought that there was inflammation of the spinal ligaments and intervertebral substance, and probably also of the membranes of the cord. Voluntary power over the lower limbs was still retained. On the evening of Nov. 8th the temperature reached 110°. Leeches were applied to the spine, and mercurial ointment rubbed into the thighs. On the 11th the temperature rapidly rose from 105° (to which it had fallen on the 9th) to 116°; on the 12th it fell to 110°, to rise again to 118°, reaching in the early morning of the 13th the astonishing height of 122°, the index of the thermometer becoming buried in the bulb at the top of the instrument, 122° being the limit of its graduation. A fall of 8° the same day was followed by a rise to 122° again in the evening, while on the 14th it had fallen again to 108°. During this period the pulse kept at about 120, the patient rapidly emaciated and often appeared to be sinking. Deglutition became very painful, and nutrient enemata were had recourse to. The ice-bags and mercurial treatment were still pursued, the latter being left off on the 16th on account of the gums becoming slightly tender. She now began to improve slightly, the pulse falling to 110, swallowing became easier, the twitchings in legs less frequent and the dorsal pain diminished. But, nevertheless, the thermometer recorded most extravagant figures, which were shown to the Society on a chart. (We append below the whole series.) Thus from the 16th Nov. to the 23rd it ranged between 114° and 118°, on two occasions reaching 120°; from Nov. 23rd to the 1st Dec. it fluctuated within wide limits—i.e., between 108° on the 29th to 122° on Dec. 1st, a difference of 10° sometimes occurring between two consecutive observations. From Dec. 1st, it began to subside, reaching on the 8th 110°, which modest level it maintained with but slight variation until the 19th, the only noticeable phenomenon occurring in her general condition,

which still steadily improved, being sudden swelling of the tongue on Dec. 12. Decided improvement still continued save in the course of the temperature which ranged between 112° and 114° from the 19th to the 27th, rising to 117° on the 20th, which proved its final outburst; from thence it somewhat rapidly declined, reaching 105° on Jan. 5th, and becoming normal on the 10th. On Jan. 22nd the patient was apparently convalescent, appetite being good, and thenceforth she took out-door exercise. It was concluded that the cord itself had not been primarily implicated, but



that the rise in temperature must be attributed to the extension of inflammation to the cord. Mr. Teale said that during the case no fewer than seven different thermometers, made by Harvey and Reynolds, had been used, of which four had received Kew certificates. As no ordinary clinical thermometer registered above 118°, one was specially provided which registered 122°; on December 1st the index of this instrument buried itself in the bulb, and as the index measured three inches, the temperature might almost be said to have reached 125°. (The thermometer was

passed round for the inspection of the members. The temperature was generally taken in the axilla, one thermometer on each side, and then the instruments reversed. Usually the readings of the left side were about $\frac{1}{2}^{\circ}$ higher than those on the right, but owing to the patient's emaciated and weakened condition the actual body heat may have been even higher than the record showed. On several occasions the temperature was taken between the thighs; once it showed 116° there, while it was but 113·5° in the axilla. On December 11th it was 111° in the rectum, and 110·4° in the axilla. The patient could never bear the thermometer to be placed beneath the tongue. The thermometers were inspected by two or three trustworthy witnesses before and after each application, and the results were always immediately recorded in writing. No hot water bottles were near the axillæ, as had been good naturedly suggested. Sometimes when the thermometrical readings were highest, the hands, feet, and forehead were icy cold, and the patient remarked that she felt as if "her blood was on fire." The urine was passed with difficulty in hot towels; it appeared a mass of lithates, so that no observations on it could be taken. The menses, which appeared once after the accident, were then suppressed until the 20th of January, when convalescence was established. The chart exhibited showed the rapid alternations of temperature within a few hours but during the space of seven weeks it never fell below 108°, With regard to the nerve-symptoms, there was at no time any distinct loss of sensation, nor any obvious paralysis; but on her recovery it was noticed that the left leg was the weaker of the two. Since the paper was sent in the patient, who had returned home, a distance of 100 miles, having had a normal temperature for five weeks, and been walking about apparently well, has experienced a relapse. At the end of her journey she had a severe hysterical attack (similar to many which she experienced during her illness), and the temperature again rose, once reaching 110°. Better accounts had since been received of her, and although her

temperature was still 105° to 106°, it was not found absolutely necessary to confine her to bed.

The accompanying chart, exhibited at the meeting, shows the temperature during two months. The chart did not allow of accurate estimation of decimals.

Mr. Calender thought the Society much indebted to Mr. Teale for having come so far to read to them so remarkable and unique a case. The highest temperature following on spinal injury with which he had personally met was 107°. He inquired what relation the pulse and respiration frequency held to the temperature in the present case.—Dr. Greenhow said that he did not venture to offer any explanation of this remarkable case. The Transactions of the Society contained several cases of hyperpyrexia occurring in rheumatic fever, and he had only seen one case of that class in which the temperature had reached 110°. He was accustomed to teach that a fatal termination would ensue in a case of rheumatic or other fever in which the temperature rose above 108°, unless reduced by the cold bath. This case bore out what he had always thought, that the high temperature was something superadded to the disease, and probably depended on nervous disturbance. Dr. Farquharson referred to a case of excessive lowering of temperature to (81°) after spinal injury, brought before the Society by Dr. Nieden two years ago, and remarked that, according to some observers, injury to the cord high up produced great lowering of temperature, while others affirmed the exact contrary. Many held that a temperature of 107·5° is incompatible with life; and, moreover, there is acute fatty or parenchymatous degeneration of organs in these cases, as shown by Liebermeister and others, which would render the maintenance of life above that standard impossible. The limits of this resistance to heat must be greatly extended by the present case.—Mr. Jonathan Hutchinson thought that there was an essential difference between these cases of abnormal temperature following lesion of nerve-centres and those which formed part of the

course of a specific fever. He had for some time past been engaged in studying the effects of injury to the spine, and had concluded that there were two classes of opposite facts in injury to the cervical portion of the cord—in the one accompanied by very low, in the other by very high, temperature. He related a case in which life was prolonged five days after fracture of the seventh cervical vertebra. There was complete paraplegia, with priapism, but marked coldness of lower limbs and penis, the temperature never rising higher than 4° below normal. Several cases are now on record where the temperature fell to 81° or 82°, but perhaps more where it, on the other hand, rose to 110°. But all these were cases of crushing of the cord, and all terminated fatally. In Mr. Teale's case he suspected that there must have been some change taking place in the cord itself, and that the mischief was not wholly external to the cord.—Mr. Pridgin Teale (Leeds) saw the patient at the onset of the very high temperature, it being then 104°, and also three weeks later, when it was 114°. Unless he had known that the temperature was so high, he could not have thought that she was so ill; and it was certainly most remarkable that this great temperature co-existed with apparently good health. From this case alone we must abandon the idea that the temperature *per se* is an element of danger. It is clear that certain nervous injuries are capable of leading to great changes in temperature; and he related a case of fracture of the skull, sustained in the hunting field, in which this reached 109°. After sudden apoplexy the heat of the body is often much raised.—Mr. J. W. Teale, replying to Mr. Callender, said that the pulse at no time exceeded 120, and was usually between 90 and 100, while there was no notable increase in the frequency of the respiration.—*London Lancet.*

*On the Relations between Diphtheria and Scarlet Fever.** By Arthur Ransome, M.A., M.D. Cantab., Lecturer on Public Health in Owens College, Manchester.

The following case shows the close connection between these two diseases.

On February 23rd last year, a boy at school had scarlet fever. He was isolated until March 25th, when his brother saw him and took the complaint. Other cases occurred at the school on the 29th, 30th, and 31st. On April 2nd, one of the masters had a rigor and sore-throat: he left at once, and was seen by me next day. On the third day diphtheritic patches covered the tonsils; but there was no rash. Slight albuminuria accompanied the pyrexia; both disappeared by the seventh day. On April 9th, six days after he arrived at home, his mother was attacked, membranous exudation appearing in both tonsils; but there was no albuminuria, and no rash.

The origin of these cases must surely be traced to the epidemic of scarlet fever at the school; for there were no cases of diphtheria either in the neighborhood of the school or near their home. The close relationship of these diseases has often been pointed out. In the *Report of the Medical Officer to the Privy Council* for 1859, Dr. Burdon Sanderson gives cases of diphtheria and scarlet fever co-existing; there also I find three cases of diphtheria following three of scarlet fever, and the former spreading to a neighbouring cottage. These diseases have much in common. They are alike in their zymotic or epidemic character; both are characterised by high pyrexia; their chief point of attack is the throat and the glands of the neck; and a rash is found in both diseases. Their sequelæ are also similar; suppuration in the lymphatic glands, ulceration of the ears, arthritic affections with or without cardiac complication, kidney-disease and dropsy general or localised paralysis of the nervous system. I have

* Abstract of a paper read before the Epidemiological Society of London, January 13th, 1875.

seen each and all of these consequences after both diseases.

Some physicians have been led by these points of resemblance to regard them as one disease, the same poison producing different manifestations ; but in spite of their similarity, I venture to think the differences are too important and too numerous to permit so simple a solution of the problem. In the first place diphtheria is seen to arise directly from scarlet fever. I have never known the converse action. There are other etiological differences. Though both are contagious, diphtheria is less so, and more frequently occurs in single cases. Where several cases occur together, some general cause is probably concerned. Scarlet fever is more frequently conveyed by clothes or other fomites, by attendants on the sick, and it may be conveyed by means of milk. I am not aware that diphtheria has ever spread by any of these means. The two diseases differ in their geographical distribution. Diphtheria is common in India where scarlet fever is unknown. Colonies and all new settlements seem particularly liable to diphtheria ; it has appeared in the Australian colonies and in South America, attacking the otherwise healthy town of Buenos Ayres. In Lima, it was noticed that the black races withstand its contagion. It selects high and well-drained districts, when low-lying lands in the vicinity escape. Dr. Blake, in the *Transactions of the Medical Society of California*, mentions a most fatal epidemic at an elevation of 4,000 feet. Many places in England subject to diphtheria are either high or well drained. Scarlet fever also haunts certain places ; but these scarlet-fever fields are not at high levels, nor are they those in which diphtheria is especially prevalent. Diphtheria is often connected with defects in the house-drainage, not always due to imperfection in the house-connection with a general sewage system, but to leakage from private cesspools ; so that a question of spontaneous origin may arise in this disease, which is hardly admissible with respect to scarlet fever. Season has a different influence on the two diseases : scarlet fever being most prevalent in the autumn,

low barometric pressure and greater humidity in the air favouring its diffusion ; while diphtheria may arise at any season, and, in my own experience, its most virulent epidemics have occurred in the summer months.

Another difference is found in the fact that scarlet fever is not often associated with other diseases, while diphtheritic affections are not uncommon in the course of other pyrexial disorders. It is recorded in the Report of the Diphtheria Subcommittee of the Epidemiological Society, that, in the epidemic of 1861, this disease occurred fifty-seven times alone, thirty-four times in association with scarlatina, nine times with small-pox, seven with measles, six with fever, and three times with ordinary sore-throat, croup, and catarrh. But in the nature and symptoms of the two diseases are points of unlikeness too great to allow us to rank them as varieties of the same species. Thus, the rash of diphtheria is often absent, is very variable as to the time of its appearance; it occurs seldom at the outset of the malady, and I have seen it as late as the third week of its course. The period at which albuminuria sets in is also different, often appearing in severe cases of diphtheria within the first two or three days, whilst in scarlatina it seldom sets in until degeneration of the kidney is commencing. There is, indeed, an entire absence of definiteness about the duration of the symptoms of diphtheria, which of itself marks it off from the regular sequence of events in scarlet fever. I have known it last for six weeks, and even two months, without any evident affection of the cervical glands, but with constant formation of exudation on the fauces or on other mucous surfaces.

The mode in which diphtheria localises itself on the mucous membranes, or on the broken surfaces of the skin, would probably be sufficient to separate it from any other disease. I do not know that scarlet fever ever attacks the larynx ; but I have seen the diphtheritic membrane appear in different cases upon wounds of the skin, upon blistered surfaces, and upon nearly all the mucous membranes of the

body—the lips, cheeks, nose, ears, pharynx, larynx, trachea, and bronchi, and on the anus and vulva; and different epidemics have differed strangely in this respect; in one, the throat would always be the point selected for attack; and in another, the other mucous membranes. It is somewhat remarkable in the latter case that, although the disease was mild and there were no deaths, the subsequent complications were much more frequent and troublesome.

The last point of difference that I shall mention is the fact that, while scarlet fever seldom reappears again in the same individual, diphtheria seems by its first attack to confer no immunity from subsequent seizures; on the contrary, the susceptibility of the throat seems to be rather increased.

Upon taking a survey of all these relations existing between scarlet fever and diphtheria, it is evident that they are distinct diseases, and yet that there is some very close and definite connection between them. Wherein the bond consists, it is not easy to point out. From the manner in which the diphtheritic poison seeks out the highest points of the best-drained localities, it has appeared to me most probable that the virus of this disease must be of a more rarefied and subtle nature than the germs that produce scarlet fever.

It is possible that the nature of some other ferments may throw some light on this subject. I would especially call attention to the discovery by M. Berthelot (*Comptes Rendus*, vol. 1, p. 980) of an unorganised glucosic ferment in an infusion of yeast resembling diastase; also to the fact that one fermentation by organised beings frequently prepares the way for another. It may be suggested, that in one of these ways the singular relations existing between scarlatina and diphtheria might be accounted for. I do not venture to affirm that there is a strict analogy between these fermentative actions and the zymosis of scarlatina and diphtheria; but, as there exist in nature ferments requiring the presence of living germs, and others acting independently of them, so there are disease ferments with

organic germs, reproducing themselves, and others which have no definite term of life, and which are not self-reproductive.

It is probable that, in most cases of fermentation, the living being connected with each kind of this action is of a specific nature, and peculiar to the medium or to the food upon which it lives. In some instances, a ferment either during or at the end of its operation will produce the conditions favourable to the growth of another kind of germ, as seen in the crowd of vibrios appearing at the end of a mycodermic fermentation; so the pyrexial state may produce the condition most congenial to the diphtheritic ferment, whether that may prove to be an organised germ or an unorganised catalytic ferment. As my excuse for offering these suggestions, I will quote, in conclusion, the words of the great philosopher Robert Boyle: "He that thoroughly understands the nature of ferments and fermentation shall probably be much better able than he that ignores them to give a fair account of several diseases (as well fevers as others) which will perhaps be never thoroughly understood without an insight into the doctrine of fermentation." (*Works*, ed. 1744, vol. i, p. 486.)—*British Medical Journal.*

Treatment of the Colliquative Sweating of Phthisis.—The colliquative sweats which so rapidly weaken phthisical patients, and are so disagreeable to them, have necessarily attracted the notice of physicians, and a great number of remedies for this symptom have been cried up. Rayer praises white agaric (Boletus laricis), which he thus gives: ℞. White agaric, gr. xv; ext. opil, gr. ¼.—M. Divide into six pills. One, or two, at night. Rodolphi employs the following formula:—℞. Sodæ bicarb., gr. viij; sulphur sub., bismuth. subnitr., aa gr. ¼. For a powder. One powder every two hours. He also recommends warm alkaline lotions made with:—℞. Carb. potass., ℥iijs; alcohol., ℥iss;

aquæ, ℥xvss. Charvet has warmly praised tannin. His formula is:—℞. Tannin. gr. xv; confect. rosæ gall., q. s. Divide into 36 pills. One to four every night. M. Woillez gives four pillules of gr. iij of tannin two hours before each meal. He sometimes adds extract of rhatany, in doses of one drachm, in a julep. Beau, who believes in an antagonism between phthisis and saturnine intoxication, has vaunted preparations of lead either in pills, as:—℞. Acetate of lead, gr. xv; white agaric in powder, gr. viij. Syrup of opium q, s. for ten pills. From one to four daily. Or in powders:—℞. Acetate of lead, opium, aa gr. viij; sugar ℥ss. Divide into twenty powders. One powder night and morning. Oxide of zinc may also be had recourse to:—℞. Zinci. oxidi,, ext. hyoscyami, aa gr. iij. To be taken, when going to bed. Lately, Drs. Bourdon and Chouppe have insisted upon the employment of ipecacuanha in the sweats of phthisical patients. M. Lasegue has obtained remarkable results from general baths, by no means prolonged, but at a moderate temperature (about 35° Cent. =95° Fahr). M. Gubler, when he has no reason to apprehend albuminuria (a rare occurrence in phthisis), praises the employment of diuretics as a remedy in these cases of phthisical sweating. He gives the patient a wine-glassful daily, of *vin diuretique*. M. Landrieux prefers the diuretic wine of the Charité Hospital (1) to that prepared according to Trousseau's formula, (2) in consequence of the former containing bitter, astringent, and aromatic substances. —*La France Médicale*, Oct. 14.

The use of Iodoform in the Treatment of Venereal Ulcers.

In a letter addressed to the editor of the *Annales de Dermatolgie et de Syphilographie* (No. 6, 1874), Professor T. Profeta, of Palermo, records his experience of iodoform as a local application to hard and soft chancres and to phagedænic ulcerations resulting from the bursting of inguinal buboes. He has obtained the most excellent results both

by washing the ulcers with a solution of iodoform (two or three grains in thirty of glycerine and ten of alcohol), and by simply strewing them with the powdered drug. Of the two methods he prefers the latter, and now adopts it exclusively. Cicatrisation begins soon after the first application, and any pain which was previously present is quickly relieved. Soft chancres heal with amazing rapidity if the iodoform is applied soon after their first appearance. We should state that Professor Profeta's testimony to the value of iodoform is all the more important because he was formerly extremely sceptical on the subject, and believed the accounts of its efficacy reported by some observers to be exaggerated. His faith in it dates from the rapid recovery of one of his own friends, who had been treated with all kinds of remedies for a phagedæmic ulcer in the groin of more than a year's standing, and which healed completely in one month when dressed with iodoform alone. There are two objections to the use of iodoform noticed by Profeta. In the first place, it is an expensive remedy, and secondly, it has an offensive and penetrating odour. The latter quality prevents persons using it who wish to conceal their disease, and it is an obstacle to their entrance into society and to their visiting public entertainments. A patient of Professor Profeta was nearly mobbed at the theatre in consequence of the unpleasant smell which he diffused around him. This incident should make us careful, therefore, in using iodoform in private practice.—*Medical Times and Gazette.*

Action of Jaborandi on the Digestive Organs.

In an article inserted in the *Gazette Médicale* for March 20, Dr. Albert Robin, who has been making under the auspices of Prof. Gubler so elaborate an investigation into the properties and action of jaborandi (*Pilocarpus pinnatus*), enters at some length into a consideration of the effects it sometimes produces on the digestive organs.

Salivation, exudation, and the increase of the lachyrmal, nasal, and bronchial secretions, he observes, are normally, with rare exceptions, the sole actions induced by this drug. This is what occurs in the physiological condition of subjects who are in good health, its influence on the digestive tube being quite trifling,—the patient sweating, spitting, and weeping, without any other immediate phenomenon being produced. But many circumstances may induce a deviation in the action of the agent from its habitual type; and then it is upon the alimentary canal that this is manifested. Therefore, we may lay down an almost absolute rule that wherever the hyper-secretions habitually induced by jaborandi are absent, or undergo a notable diminution in their general and collective intensity, compensatory action is always found in the digestive canal. The phenomena which then ensue are of two kinds—first, the normal, which are nearly constant, and depend upon the general effects of the medicine, of which they are the direct consequences; they are the intense thirst which accompanies and follows sudation, and changes in the appetite, which is sometimes diminished and sometimes exaggerated. Secondly, the accidental, which appear whenever the normal action of the jaborandi is impeded by any cause, or certain precautions have been omitted during its administration; they are vomiting and diarrhœa. This division is not absolute, for vomitting may appear during normal action, but it holds good in the great majority of cases.

1. *Thirst.*—As a general rule, after swallowing a cup of tepid infusion, a sense of warmth is felt in the region of the stomach, and then thirst supervenes and still continues, even after the termination of the sweating. As the result of observation the precept may be laid down that the patients should be prevented drinking to quench their thirst, as this is a frequent cause of vomiting. A little very weak coffee, or a light infusion of peppermint, etc., may be administered.

2. *Appetite.*—This is rarely diminished, but is often increased after the termination of the sweating. One patient,

who in thirty days took jaborandi fourteen times, became more hungry after each administration.

3. *Vomiting.*—This has been met with thirty-eight times in ninety cases, *i.e.*, in 40 per cent. This proportion might lead to the belief that it is one of the normal effects. It is not so: and when the causes of such vomiting are known, it may, in general, be prevented. (*a.*) *Influence of the Dose and Preparation*—viz., when the dose is too large or the leaves too fresh. Vomiting from this cause, which is preceded by nausea, comes on some minutes after taking the infusion, and usually before the medicine has had time to produce its special effects. (*b.*) *Influence of Food:* It is indispensable that the patient should take jaborandi in a fasting condition. This rule is a very important one; for 70 per cent. of those who did not observe it vomited, and that even when one or two hours had elapsed since the meal. The vomiting may take place either at the commencement or in the midst of the sudation—the effects of the medicine being of course less energetic and of shorter duration. (*c.*) *Influence of the Saliva:* It is essential for the patient to be enjoined not to swallow the saliva that is produced during the salivation; for otherwise vomiting will infallibly occur. This takes place at the end of the sudation, it being almost pure saliva that is rejected. (*d.*) *Gastric Hyperscretion:* In some cases in which there has been but slight sudation, at the end of this a colourless, acid fluid is vomited, which is really gastric juice-alkaline. These cases are explained by the deviation of the habitual action of jaborandi, analogous to that which is produced in animals who do not sweat, and in whom all the effects of the agent seem to be concentrated on the alimentary canal. The acid and especially the bilious, vomitings are produced whenever sudation is not freely developed, as when it is checked by a chill just as it is about to be produced. After the vomiting, and the diarrhœa which usually accompanies it, the sudation that has been thus interrupted is either not re-established or only imperfectly so. When the existence of a chill can-

not be ascertained, an idiosyncrasy may possibly exist. It is thus seen that in the great bulk of cases the causes of the vomiting may be ascertained and avoided; and this is of importance, as for many persons the nausea and vomiting are such distressing occurrences that they would induce patients to refuse to continue the medicine.

4. *Diarrhœa.*—It not unfrequently happens that just before the sweating commences, or in a few hours after its termination, the patient has one or two soft, or even liquid stools. As after these all goes on as in the normal condition, they are of no consequence. But when there is a deviation in the action of the jaborandi, the vomiting that then occurs is always accompanied by a diarrhœa of various abundance, which is generally produced by colic. It is not, however, of long duration, ceasing, like the vomiting, after some hours, when the active principles of the jaborandi have been eliminated by the gastro-intestinal canal.—*Medical Times and Gazette.*

SURGERY.

The Occurrence of Hemorrhage after Esmarch's Method.

M. Dutrait, one of the *internes* of the Lyons hospitals, in a communication to the *Lyon Médical* for March 7 and 14, furnishes some particulars of the cases in which hemorrhage has followed the employment of Esmarch's method in that city. There, as elsewhere, he says it has taken the place of the principal assistant at operations, and he suspects that there has been some of that indiscriminateness in its adoption which characterises the reception of all novelties. At first its incontestable advantages were alone remarked upon, but now it has been employed with sufficient frequency to allow of a mature judgment being delivered, and several questions of practical importance receiving solutions. In this paper M. Dutrait confines himself to the question of the greater frequency with which

hemorrhage has been observed at Lyons. This he considers according to the three circumstances under which it may occur—viz., immediately after the operation, within twenty-four or thirty-six hours after it, and at the end of several days.

The *immediate* hemorrhage, which ensues on gradually diminishing the compression, although covering the whole surface with blood, is of little consequence, being in fact, chiefly venous; and if, as recommended by M. Gayet, of Lyons, the remaining turns of the compressing bandage are suddenly loosened, the dark venous blood ceases to flow, the smaller arteries which can then be secured only yielding blood.

The *secondary* hemorrhage, also, which takes place at a more or less remote period after the first twenty-four hours, has nothing peculiar about it after this procedure; but that which occurs within the twenty-four hours, and generally in from three to six hours (and which the author terms *hemorrhagie précoce*, as distinguished from that occurring later), is adirect result of the procedure, inasmuch as it is much more rarely met with under other circumstances. There is a general bright red oozing without any tendency to spontaneous arrest; while besides this there are not infrequently jets of blood from small arteries that have escaped the ligature. This hemorrhage is so often observed at Lyons that Dr. Dutrait can only characterise it as the ordinary occurrence; and the application of the apparatus is the same as that employed by Esmarch, except that the constricting-tube is generally replaced by several turns of bandage kept *in situ*. In the present paper notes are given of twenty-eight cases, and an observation by Prof. Courty, of Montpellier, is quoted, to the effect that so habitual is hemorrhage in his cases that as much blood is lost as was supposed to be saved. Of twenty-eight major operations in which elastic compression has been employed, loss of blood occurred in eighteen, and in twelve at least to such an extent as to com-

pel intervention. Hæmorrhage has been ... er met with in amputations than in excisions, and oft... amputations for traumatic injury than for disease ... the author's opinion, as in that of other Lyons surg... ne procedure may easily be dispensed with in amputation... in which digital compression can be easily effected ; but in operations upon the bones and joints its value is very great—in the so-called operations of conservative surgery. In fact, many operations of this kind would be impossible without its aid, and a number of small delicate ones are rendered more practicable, such as the sutures of tendons, ligatures of arteries, the removal of sequestra, the search for foreign bodies, etc., all of which become wonderfully simplified when blood no longer covers the tissues.

The hæmorrhage above described may be best avoided by observing certain precautions :—1. Tie all the arteries that are anatomically described, when they can be detected. 2. After the ligature wait a considerable time without applying any dressings. M. Ollier leaves his patient to recover himself gradually, and then returns to examine whether any hæmorrhage exists. 3. The paralysis of the vaso-motors is rendered more rapid by the employment of hot sponges, which are afterwards kept in contact with the wound for some instants. 4. If these means are thought to require too much time, a modification of the procedure contrived by M. Mollière may be adopted. After having carefully compressed the limb from its extremity, he arrests the application of the bandage at the level of the seat of the operation, and then applies another bandage a few centimetres higher up, terminating it as usual. In this way a space is kept filled with blood, which may be allowed to issue during the application of the ligatures—this greatly favouring the search for the smaller arteries, and the distinguishing them from veins. 5. Whenever it can be used without inconvenience,dressing the wound with *eau de Pagliari* gives great security. 6. The medullary arteries often bleed considerably, and sometimes exclusively ; so that the

perchloride or other styptic should not be neglected. 7. In all cases gentle and methodical compression should be applied to the limb. 8. For some hours the patient should be carefully watched, as the hæmorrhage is insidious, and especially when cotton-wool dressing is employed.—*Medical Times and Gazette.*

Cases of Fracture of the Skull.

The first three cases illustrate a fact which surgeons are constantly having brought under their notice—viz., that *a fracture of the base of the skull with laceration of the corresponding portions of the dura mater and arachnoid* may occur, and yet but slight, if any, cerebral disturbance will be caused. From experiments made by Majendie it would appear that in living animals the withdrawal of the cerebro-spinal fluid causes great disturbance of the cerebral functions, by allowing engorgement of the blood vessels. It is, however, much more probable that any such disturbance ought to be ascribed to the shock of the experiment or the admission of air into the subarachnoid cavity. The escape of a watery fluid from one or both ears in cases of fracture of the skull is regarded as a grave symptom ; and so, indeed, it is,—for does it not prove that the injury, if it has not reached the brain substance, has at any rate extended further inward than the cranium itself ; that the dura mater with its arachnoid layer, which as it passes the roof of the ear, is very adherent to the petrous bone, has been divided ; and that a communication—indirect, it is true, but still a communication—has been established between the arachnoid cavity and the surface ? It is pretty certain, too, that the injury reaches beyond the parietal layer of the arachnoid ; that the visceral layer is also torn, and that thus the subarachnoid space is opened. The arachnoid cavity in its normal state contains but a very small quantity of serous or albuminous fluid, sufficient only to lubricate the two surfaces of the arachnoid membrane during the movements of the brain ;

while the quantity of fluid which trickles from the ear after fracture of the base of the skull is often much greater than this slight secretion into the arachnoid cavity will account for. Moreover, it may be made to flow more freely and more rapidly by anything which distends the veins of the head. This fact was proved by Mr. Hilton, in an experiment which he describes in his classical lectures on "Rest and Pain":—

"Some years ago I had in Guy's Hospital, a patient suffering from fracture of the base of the skull, and from one of his ears a thin watery fluid was pretty constantly running. It occurred to me that if I could fill this patient's head more full of venous blood, I might succeed in displacing the cerebro-spinal fluid, and that if the fracture had established an easy communication between the auditory canal and the cerebro-spinal fluid in the interior of the skull, I should be able to force out of the ear some of the cerebro-spinal fluid. I accordingly went to his bedside, and told him to take a very full breath. I then held his nose and lips, and put my fingers so as to compress his jugular veins on each side of his neck. His face became exceedingly congested and discoloured, and he commenced struggling to get rid of the pressure of my hands upon his nose and mouth. This had scarcely taken place before a quantity of thin fluid came running out of the auditory canal, and I succeeded in collecting nearly half an ounce of it. The experiment was now completed. I removed my hands from the nose and mouth of my patient, and he quickly recovered his condition of repose. Thus, then, I had succeeded in displacing from the interior of the cranium a quantity of cerebro-spinal fluid (for so it was afterwards proved to be by microscopic and chemical examination), by propelling to the interior of the skull an increased quantity of venous blood."

The gravity of this symptom, beyond that of simple fracture of the bones of the skull, is dependent on the damage done to the membranes of the brain, and the increased risk

of subsequent inflammation of these membranes. At the same time, it must be remembered that in all cases of discharge of cerebro-spinal fluid from the ear, the fracture of the bone has occurred in a situation very favourable to the escape of the brain from injury. It is under the posterior two-thirds of the base of the brain that this fluid is in part situated, and is here acting as a kind of water-cushion to protect the brain from concussion and bruising. It is, no doubt, through this protecting function of the cerebro-spinal fluid that in these three cases, as well as in others like them, the cerebral disturbance has been so transient, if, indeed, as in some instances, any can be said to have existed.

GUY'S HOSPITAL.

Case 1.—*Fracture of Base of Skull—Escape of Cerebro-Spinal Fluid from both Ears—Recovery.* Under the care of Mr. BIRKETT. From notes by Mr. LOWDELL, Ward Clerk.

Jessie C., a girl nine years of age, was admitted into the Martha ward on December 2. Shortly before admission she had fallen downstairs, and had been taken up insensible. When admitted there was a clear watery fluid flowing from the left ear as she was lying on her side; her countenance was pale, and her pupils were dilated. The next morning she vomited a little. The pallor of her face had diminished. She had slept well, and looked better. Her temperature was 99-5°, her pulse 108, and respirations 18. The discharge from her ear was still going on.

December 6—There is scarcely any discharge from the ear to-day. She has taken very little but water.

8th.—Discharge from the ear still continues. Her neck below the ear is sore and inflamed. Lies always on the right side. Her pupils are equal. There is no paralysis, no delirium, and no headache.

15th.—The inflammation about the neck has now disappeared. There is a drop or two of cerebro-spinal fluid in the auditory meatus. Pulse 96; respirations 22; temper-

ature 98·6°. Still kept on fluid diet, and still has ice applied to her head. She is cheerful and lively.

18th.—Going on well. Was allowed some potato and toast to eat, and some tea to drink.

23rd.—Sits up in bed now. Applications of ice to head discontinued. Seems very well.

January 6.—Is dressed to-day, and running about.

February 2.—Is up the whole day; runs about the ward, and is quite well.

University College Hospital.

Case 2.—Fracture of Base of Skull—Clear Fluid from Ear for twenty-four Hours—No Head Symptoms beyond Pain—Convalescing. Under the care of Mr. Heath.

Anne P., aged eighteen months, was admitted on the afternoon of October 15, 1874. At a quarter to one, previously, the child had fallen from a window upon its head on to some flagstones, a distance of about twelve feet. It cried shortly after it was picked up, and bled from the nose and left ear. It was brought to University College Hospital, and admitted at about one o'clock. The mother said it was insensible for about ten minutes.

On admission the child was conscious, and cried when touched. It moved its legs and arms freely. There were no signs of any paralysis. Its skin was pale and cold. There was a swelling over the left eye, which extended slightly into the left eyelid. Both pupils were widely dilated, equal in size, and insensible to light. There was bleeding from the left ear, and from both nostrils. That from the nostrils stopped soon after admission, but that from the ear went on slightly until seven in the evening. There was no subconjunctival effusion. Temperature 96·4°; respirations 13 per minute. Breathing somewhat stertorous; slight blowing of lips. Ordered to take a powder of one grain of calomel every third hour.

The child vomited up the first powder which was given to it, but retained one which was given immediately after-

wards. Wrapped up in flannel; hot water bottles to feet and body; ice-bag to head. 10 p.m.: The child up to now has cried out occasionally. It lies with its eyes closed, but readily cries out when touched. The left eyelid is too much swollen to examine the pupil, but the right pupil acts readily to artificial light. At this time some clear fluid was discovered in the left concha. By turning the child's head round, this was tipped into a test-tube, but on testing it with Fehling's solution, no sugar was detected.

16th.—Patient was sick after the twelve o'clock powder, and again between this and 6 a.m.; bowels open twice. There is still some fluid in the concha, but it is not flowing freely. No ocular extravasation. Both pupils widely dilated, and insensible to light. Child lies quiet, but cries when touched. There is some dried blood about the nostrils this morning. The breathing is now twenty-two per minute, and quiet. Temperature 98·6° ; pulse 120. There is considerable bruising about the left eyelid. The child is in other respects about the same as yesterday; it has taken a little milk at intervals.

17th.—Child slept quietly last night. Bowels have been opened once. Has been taking milk at intervals. Pupils widely dilated, insensible to light. Child lies quiet, but cries when touched. Temperature 97·40; pulse 110; respirations 22.

18th.—Bowels open in the night; motion of a dark green colour. Powder to be taken three times a day.

19th.—Bowels open once again in the night. Child keeps crying, but this is probably due to the ice-bag, Pupils dilated, sensible to light. Temperature 97·4° ; pulse cannot be felt at wrist.

20th.—Patient passed another motion last night of a dark green colour. Temperature 97°. Pupils dilated, sensible to light. Child appeared more comfortable this morning.

22nd.—Going on well. To be made an out-patient.

Prolapse of Funis—Conclusions from an Examination of One Hundred and Sixty Cases.

Dr. Geo. J. Engelmann (*Amer. Jour. Obstet.*, May July, 1874) furnishes an exhaustive paper on prolapse of funis based upon one hundred and sixty cases. The following are the facts and laws set forth by this study;

The causes of the prolapse of the umbilical cord have mainly proved to be such circumstances as prevent the

complete filling of the pelvic basin, and the close adaptation of the lower segment of the uterus to the presenting part. One of the more important of these circumstances is the shape of the presenting fœtal part itself. We thus find that foot presentations are most frequently complicated by prolapse, whereas vertex presentations are least threatened. The fœtal appendages are of secondary and minor importance ; undue length of the cord, its marginal insertion, or attachment of the placenta low down in the uterus, can never be the direct cause of the accident, Excess of liquor amnii is alone to be feared. Some stress is to be laid on abnormity in shape and position of the womb ; much more upon twin births. More dangerous than any of these is the contracted pelvis, which is proved by measurements and numbers to be the main cause of prolapse of the funis, directly and indirectly—a fact hitherto generally accepted, but never yet clearly established. These cases disprove the general statement that prolapse is far more frequent among multiparæ than among primiparæ. They show that these two classes are equally liable to this accident.

The law governing the location of the prolapse as of importance is here first treated of.

Post-mortem examinations revealed only the lesions due to death from asphyxia ; nothing characteristic for death caused by prolapse of the cord.

The prognosis we can give is somewhat better than generally allowed—most favorable for foot presentations, after these for shoulder and tranverse presentations, while vertex presentations are more dangerous than any ; the case being under all circumstances more threatening when occurring in a primipara. In treatment of our cases, the high importance of postural treatment has been developed ; more an adjuvant, however, than as a method in itself of dealing with the prolapse.

Version is comparatively the most successful in all operations, and should be more frequently resorted to when any choice of method is given, as in head presentations. The application of the forceps and reposition of the cord are less to be relied upon. But in any course determined upon it must be borne in mind that the success of all operations by which we seek the preservation of the child whose life is threatened by compression of the prolapsed cord is in a measure dependent upon the judicious use of chloroform ; its application to full surgical anæsthesia.—*Detroit Review of Medicine.*

CANADA

Medical and Surgical Journal.

MONTREAL, APRIL, 1875.

THE QUEBEC PHARMACY ACT.

Quite an excitement has prevailed amongst the Druggists and Apothecaries since the passing of the Pharmacy Act, and we are pleased to observe that gentlemen desirous of following the business of an Apothecary and Druggist are by the terms of that act obliged to qualify. This is the more gratifying as these gentlemen have systematically ignored the law as it existed prior to the passing of the Pharmacy Act, and refused to qualify on the terms exacted by the College of Physicians and Surgeons of Lower Canada. We give below a notice of the Pharmaceutical Association issued by the Council of that body :

NOTICE is hereby given that at the last Session of the Parliament of the Province of Quebec, an Act to amend the Act of Incorporation of the Pharmaceutical Association of the Province of Quebec, cited as "The Quebec Pharmacy Act of 1874," was passed, said Act giving full control and licencing powers to the Council of the said Association. On and after the first day of May, 1875, it will be unlawful for any person to keep open store for the retailing, dispensing or compounding of the poisons enumerated in Schedule A, or to sell or dispense the said poisons, or to engage in the dispensing of prescriptions, or to assume or use the title Chemist and Druggist, or Chemist or Druggist, Apothecary or Pharmaceutist, or Pharmacist or Dispensing Chemist, within this Province, unless he be registered in accordance with the provisions of this Act as a Licentiate in Pharmacy. It will also be unlawful to employ any clerk or apprentice in any shop or store for the sale of such poisons, or in the dispensing of medicines, except such clerk or apprentice be registered as required by this Act.

Persons offending against the provisions of this Act are liable to a penalty of fifty dollars.

If any person shall falsely represent by any name, title or description that he is registered under this Act, or engage himself as a certified clerk or as a certified apprentice, not being registered as such, he will, upon con-

viction before a Magistrate, be liable to the respective fines as provided for by this Act.

On and after the first day of May, 1875, it will be unlawful to keep or sell any of the poisons named in Schedule A, unless the box, bottle, vessel, wrapper, or cover in which such poison is contained be distinctly labeled on a black label with the name of the article and the word "Poison," and with the name and address of the seller of the poison. And it will be unlawful to sell any such poison to any person unknown to the seller, unless introduced by some person known to the seller; and on every such sale of such article the seller shall, before delivery, make, or cause to be made, an entry in a book to be kept for that purpose, stating in the form set forth in Schedule B of this Act, the date of the sale, the name and address of the purchaser, the name and quantity of the article sold, and the purpose for which it is stated by the purchaser to be required, to which the signature of the purchaser and of the person, if any, who introduced him, shall be affixed; and any person selling such poison otherwise than as herein provided, shall, upon conviction before a Magistrate, be liable to a penalty not exceeding twenty-five dollars, and for the purpose of this section the proprietor on whose behalf any such sale is made by any apprentice or servant, shall be deemed to be the seller.

All persons in business on their own account, prior to the passing of the Act, are entitled to be placed on the Register, and to be certified as "Licentiates in Pharmacy."

All clerks after satisfactory examination before the Board of Examiners of the Association, will be entitled to be placed on the register as "Certified Clerks." All certified clerks, before they can become Licentiates in Pharmacy, must produce evidence that they have been at least four years in a Drug Store, and have attended two Courses of Lectures on Chemistry, two courses on Materia Medica, and one course on Botany.

Every youth, before he is taken as an apprentice by a Licentiate in Pharmacy, shall produce satisfactory evidence of a good moral character, and pass a preliminary examination in the English, French and Latin languages, and arithmetic, after which he shall be registered as a "Certified Apprentice."

Every Licentiate in Pharmacy shall, every year, pay to this Association a fee or subscription of *five dollars* per annum, every certified clerk shall pay to the Association an annual fee of *three dollars*, and every certified apprentice shall pay to the Association an annual fee of *one dollar*. Such fees shall be due on the first day of May in every year, and any Licentiate, Clerk or Apprentice not paying such fee before the first of July, shall be removed from the register, and lose the privileges conferred on him by this Act, but he shall be restored to all his former privileges by the Council of the Association on payment of a fine not exceeding five dollars, if paid before the first of the following October.

Registrations will be made and Certificates granted by the Registrar on application and payment of the required fees; further information, if required, will be given, and copies of the "Poison Book" sold by the Registrar.

ANNUAL CONVOCATION OF McGILL UNIVERSITY.

The Annual Convocation of the McGill University was held in the William Molson Hall of the University, on Wednesday the 31st March, 1875, for conferring degrees in Medicine and Law. There was a large assemblage of the friends of the University, the Hall being filled with ladies and gentlemen. Shortly after three o'clock, the members of convocation passed through the hall and ascended the platform, Peter Redpath, Esq., in the absence of the Chancellor of the University, presiding. Amongst those present we noticed the Most Reverend The Metropolitan; Hon. Attorney-General Church; Hon. Jas. Robertson; Sir A. T. Galt; Solicitor-General Angers, and others.

The meeting was opened with prayer, after which W. C. Baynes, Esq., B.A., Sec'y., read the minutes of the last meeting of Convocation.

The Dean of the Faculty, Geo. W. Campbell, A.M., M.D., then read the following report of that Faculty:

The total number of students attending the lectures of this Faculty during the past session was 129, of whom there were from:

Ontario	67	New Brunswick	3
Quebec	43	P. E. Island	1
Nova Scotia	3	West Indies	2
		United States	5

The following gentlemen, 32 in number, have passed their primary examinations on the following subjects: Anatomy and Physiology, Chemistry, Materia Medica and Pharmacy, Institutes of Medicine and Botany and Zoology, their names and residences are as follows:

Campbell James, ... London, O.
Colquhoun George, ... Grantley, O.
Cook Guy R., B.A ..... Aultsville, O.
Cooke Wm. Henry, ... Drummondville, Q.
Cream Thos. N., ... Quebec, Q.
Crothers Wm., ... Clarenceville, Q.
Eberle Henry, ... Morpeth, O.

Gray John S., ... Heckston, O.
Greer Thos. A., ... Colborne, O.
Hunt Henry, ... Notfield, O.
Johnson Jas. B., ... Weston, O.
Lang Christopher McL., ... Owen Sound, O.
Levi Reuben, ... Montreal, Q.
McIlmoyl Henry A., ... Iroquois, O.
MacDonnell Richard L., B.A. ..... Montreal, Q.
McRae George, ... Renfrew, O.
Metcalfe Henry J ..... Riceville, O.
Munro Alex. ..... Montreal, Q.
Murray Chas. H., B.A. ..... Montreal, Q.
Powell Robert W ..... Ottawa, O.
Reddy Herbert L., B.A. ..... Montreal, Q.
Ritchie Arthur F., B.A. ..... Montreal, Q.
Robinson Stephen J. ..... Brantford, O,
Ross Wm. D. ..... Ottawa, O.
Secord Levi. ..... Brantford, O.
Smith Wm. ..... Lachute, Q.
Snider Fred. S. ..... Simcoe, O.
Stevenson Chas. N. ..... Sarnia, O.
Stevenson Sabine ..... Cayuga, O.
Storrs Arthur ..... Cornwallis, N. S.
Stroud Chas. S ..... Montreal, Q.
Young Philip R. ..... Clarenceville, Q.

The following gentlemen, 31 in number, have fulfilled all the requirements to entitle them to the degree of M.D., C.M., from this University. These exercises consist in examinations both written and oral on the following subjects —Theory and Practice of Surgery, Theory and Practice of Medicine, Obstetrics and diseases of women and children, Medical Jurisprudence and Hygiene,—and also Clinical examinations in Medicine and Surgery conducted at the bedside in the Hospital.

The names of the successful candidates, their residences and the subjects of their theses, are as follows :—

NAME.	RESIDENCE	THESIS.
Bain Hugh U., B.A.	Perth, O.	Clinical Reports.
Benson Joseph B.	Chatham, N.B.	Typhoid Fever.
Bomberry George E.	Tuscarora, O.	Delirium Tremens.
Brossard Jean Bte.	Laprairie, Q.	Hysteria.
Burland William H.	Montreal, Q.	Hospital Reports.
Christie John H., B.A.	Lachute, Q.	Vermes Intestinorum.

Dorland James	Adolphustown, O.	Clinical Reports.
Dowling John F.	Appleton, O.	Typhoid Fever.
Duncan George C.	Port Dover, O.	The Sphygmograph.
Falls Samuel K.	Carp, O.	Acute Rheumatism.
Gilbert Henry L.	Sherbrooke, Q.	Signs of Pregnancy.
Goodhue Perkins J.	Danville, Q.	Congenital Syphilis.
Graham Kenneth D.	Ottawa, O.	Morbus Coxarius.
Hanington Ernest, B.C.	Shediac, N.B.	Clinical Notes.
Hanover William.	Packenham, O.	Acute Pleurisy.
Hume William L.	Leeds, Q.	Acute Peritonitis
Jamieson Thomas A.	Lancaster, O.	Diagnosis.
Kearney William J	Montreal, Q.	Diseases of Menstruation
Langlois Onesime X.	Windsor, O.	Duties of the Accoucheur
Mattice Richard J.	Moulinette, O.	Acute Pleurisy.
McDermid William.	Martintown, O.	Vaccination.
Meek James A.	Cornwallis, N.S.	Enteric Fever.
Monk George H.	Montreal Q.	Pericarditis.
Nelles James M.	Brantford, O.	Typhoid Fever.
Ross William D.	Ottawa, O.	Tubercular Meningitis.
Scott William F.	Hull, Q.	Locomotor Ataxy.
Tunstall Simon J. B. A.	St. Ann's, Q.	Surgical Cases.
Ward Michael O'B.	Montreal, Q.	Cataract.
Wigle Hiram.	Essex Centre, O.	Abdominal Section.
Woods Edmund J. J.	Aylmer, Q.	Percussion and Auscultation.
Woolway Christopher C.	St. Mary's, O.	Modern treatment of Fever.

Three of the above-named gentlemen, Messrs. Burland, Gilbert and Woolway, are under age. They have, however, passed all the examinations and fulfilled all the requirements necessary for graduation, and only await their majority to receive their Degree.

The following gentlemen passed the examination Theoretical Chemistry:

Henry Greaves,	A. C. Fraser,	W. B. Elliot,
G. Cannon,	Frank L. Miner,	R. Collison,
John Brodie,	C. L. Cotton,	D. H. Cameron,
G. E. Armstrong,	G. A. Park,	L. A. Fortier,
J. A. Lane,	D. J. Quigley,	J. R. McLaren.

Students who have passed the examinations in Botany and Zoology:

BOTANY,

Class I.	Class II.	Class III.
Ayer,	Faulkner,	Riley,
Butler,	Ryan,	Morden,
Cameron, T. D.,	Cameron, P.,	McLeod, J.,

McQuigan, Guerin, Fraser, McCann, McKinley, Vineberg, McLaughlin, Pinsonneault. Campbell, Gibson,

Stafford, McLeod, J. A., Greenwood, McCrimmon, Gillis, Hutchinson, Henwood, Smith, Chisholm, Rutherford, Kirk.

Collison, Weir, Irwin, Brennan, Fenwick, Farley McDonald, Fogg.

ZOOLOGY.

CLASS I.—Butler

The Medical Faculty Prizes are three in number:

1st. The Holmes Gold Medal, awarded to the graduate who receives the highest aggregate number of marks for the best examinations, written and oral, in both Primary and Final branches as also for an inaugural thesis.

2nd. A prize in books awarded for the best examination, written and oral, in the final branches. The gold medalist is not permitted to compete for this prize.

3rd. A prize in books awarded for the best examination, written and oral, in the primary branches.

The Holmes Gold Medal was awarded to Simon J. Tunstall, B.A., St. Ann's, P.Q.

The prize for the final examination was awarded to Joseph B. Benson, Chatham, N. B. Christopher J. Woolway was prevented by illness on the day of the public written examination from competing for honors, but he deserves special mention as he received the full number of marks at his clinical and oral examinations. Mr. Duncan also deserves special mention for his great mechanical ingenuity in constructing a sphygmograph with improvements of his own for measuring the force and undulations of the arterial Pulse.

The prize for the primary examination was awarded to Charles S. Murray, B.A., Montreal, Q. and Robert W. Powell, Ottawa, O. These two gentlemen received an equal number of marks.

The following gentlemen, arranged in the order of merit, deserve honourable mention :—In the final examination Messrs. Hanington, Hume, Bain, Ross, Falls, Ward, and Scott.

In the primary examination Messrs. MacDonnell, Ritchie, Smith, Levi, Young, Reddy, Secord, Snider, Ross, Hunt, Guy R. Cook, and Sabine Stevenson.

PROFESSOR'S PRIZE.

Botany.	Zoology.
Ayer.	Butler.

Prize for the best collection of plants, C. L. Cotton. Those deserving honourable mention in Botany, Messrs. Butler, F. D. Cameron, and McQuigan. For collection of plants well prepared and determined, honourable mention, James Bell.

PRACTICAL ANATOMY.

Demonstrator's prize in the Senior Class, awarded to John Brodie.

Those deserving honourable mention for care and assi duity, Messrs. A. C. Fraser, James Bell, F. L. Miner, G. E. Armstrong, and William H. Howie.

Junior Class prize awarded to N. Ayer. Honourable mention, Messrs. A. Jamieson, W. B. Gibson, Fred Campbell, F. J. Stafford, and J. J. Guerin.

The Graduates were then called forward and the *Sponsio Academica* was administered by Professor Craik, and each in turn presented to Vice-Chancellor Dawson, who performed the ceremony of Capping, and delivered to each candidate his diploma of Doctor of Medicine and Master of Surgery.

At the conclusion of this ceremony Dr. James M. Nelles of Brantford, Ont., delivered a valedictory address on behalf of his associate Graduates. Dr. Osler, Lecturer on the Institutes of Medicine, then addressed the graduating class on behalf of the Medical Faculty.

After the proceedings of the Faculty of Law, and an address from Principal Dawson, the meeting was brought to a close by the Benediction pronounced by the Right Reverend Bishop Oxenden.

THE LATE DR. WAGNER.

It is our painful duty to announce the death of our old and respected friend and brother practitioner William H. Wagner, M.D., which sad event took place at his residence Dickinson's Landing, Ont., on Wednesday the 7th April, instant, in the 61st year of his age.

The subject of this notice graduated at McGill University in the year 1844, although he previously held a diploma from Jefferson Medical College, Philadelphia, having followed his studies at that Institution. Dr. Wagner possessed a large amount of common sense, a commodity which is often sadly wanting ; he was an enthusiast in his profession and always kept up with the progress of the day. As a surgeon he was a cool operator and ready at resources—highly esteemed and respected by the people in his immediate neighborhood he has left behind him many sorrowing friends. Although it is sometimes a difficult matter to fill the place of an old and experienced practitioner, yet in this instance the people of the Landing are fortunate in having amongst them the son of the deceased, Dr. A. D. Wagner a young gentleman of high promise who graduated three years ago at McGill University.

TRANSFUSION.—The transfusion of blood is a medical experiment which should only be tried under the best advice, and even then sometimes produces distressing results. A man named Simpson was, according to one of the American papers, the other day nearly dead from consumption, when Dr. Hopkins, who was attending him, decided to try the

effect of a transfusion of blood. As none of Simpson's friends or neighbours were willing to shed their blood for Simpson's sake, Dr. Hopkins had no alternative but to use Simpson's goat for the purpose, and accordingly, opening the patient's arm injected about two quarts of the goat's blood into the sufferer's system. Simpson began immediately to revive; but his revival was marked by the most disagreeable symptoms. No sooner had his strength returned than he jumped out of bed, and, twitching his head about after the fashion of a goat, made a savage attempt to butt the doctor. Dr. Hopkins, after Simpson's head had been plunged against his stomach three or four times with the force of a battering-ram, took refuge in an adjoining room, whereupon Simpson banged his head against the door with such violence that he would have soon smashed the panels but that his attention was diverted from the doctor by his mother-in-law, who at this moment entered the room. One well-directed blow from Simpson's head floored the unfortunate old lady, and then, as she lay screaming for help, Simpson frolicked round her, making efforts to nibble the green flowers which formed the pattern of the carpet. At last he was securely tied down, but alarmed the whole neighbourhood by his frightful "ba'as." Distressed by Simpson's condition and the reproaches of Mrs. Simpson, Dr. Hopkins determined to undo the evil if possible, and, by heavily bribing an Irishman who was Simpson's servant, procured fresh blood from the faithful domestic and injected Simpson a second time. Simpson is now quite well, but shocks his old Republican friends by displaying an irresistible tendency to vote the Democratic ticket and speaks with a strong brogue. He has only once butted since the last "transfusion." On going into church a few Sundays ago one of the remaining corpuscles of the goat's blood got into his brain, and he butted the sexton half-way up the aisle, recovering himself, however, in time to apologize just as the indignant sexton was about to floor him with a hymn book.—*Pall Mall Gazette.*

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Cerebro-Spinal Sub-arachnoid Hæmorrhage, proving suddenly fatal after several attacks of temporary loss, of consciousness. — Autopsy. By GEORGE A. BAYNES M.D., CM.

Read before the Medico-Chirurgical Society 2nd Aprll, 1875.

On the night of the 3rd of March I was called on to see W. T. S. Not being at home the messenger went for Dr. Scott who saw him after having recovered from what was said to be a faint or fit, the doctor ordered him to bed and to receive a cup of tea.

On my return at 11 P.M., I went to the club and saw him he was lying in the Strangers' Room, on pillows ; he was much excited being very talkative and throwing his legs about. On enquiry I found that he had had one fit or faint early in the evening, losing consciousness completely but had recovered almost immediately. After some little time he was dressed and placed in a cab to be taken home, when he said that he felt another faint coming on him, and only had time to step from the cab when he fell prostrate on the sidewalk. Calling some of the waiters he was carried into the club again and placed in the strangers' room where I found him. After conversing some little time we dressed him and drove to his rooms in Bleury street. I gave him a purge of calomel and jalap, after which he soon fell asleep, but was very restless all night.

March 4th.—Saw him both morning and evening to-day ; at both visits he was dull and very heavy looking, dozing at

intervals. Complained of pain at the epigastrium and nape of the neck, the latter he attributed to the fall after getting out of the cab the night previous. In the evening I gave him a couple of cathartic pills, the purge of the night before not having operated. I remained with him until he was sound asleep.

March 5th.—Saw him at 11 A.M. He still had a very dull, listless appearance ; bowels moved once,—complained of dyspepsia. He had been subject to indigestion for some time, for which I had previously prescribed. He asked for more of the pills I used to give him, they were :

℞.	Ferri redacti	gr. xl.
	Zinci Valerianatis	gr. xx.
	Strychniæ	gr. i.
	Glycerini	q. s.

Mix and divide into 20 pills ; one three times a day after meals.

I also gave him a dose of Bromide of Potassium at night,

March 6th.—Much better to-day, but still very nervous and having a presentiment of another fit. Walked about the room very restlessly from one seat to another ; continued the pills with a dose of Bromide at night.

March 7th. — Very much better to-day ; more lively. Went out for a drive. Slept well the previous night—continued the same treatment.

March 8th.—Still improving ; walks with greater ease than previously, but still is nervous and fears another faint, so I proposed a consultation, asked him who he would have ? said, Dr. Campbell. I called on the Doctor and made an appointment for the morrow ; continued the same treatment with the Bromide but stopped the strychnine pills.

March 9th.—Dr. Campbell saw him in consultation with me to-day ; he told him that he had slight congestion but he would recover ; he must take this as a warning, and to be very guarded in the future as to his living. Ordered him to continue the Bromide of Potassium with spt. of Chloro-

form ; to get another purge of five grains of Calomel in a cathartic mass.

He walked very fairly to-day but rather weak. Dr. C. pronounced his heart sound.

March 10.—Much improved to-day, more lively ; walked talked, ate and drank well. Went out for a drive ; complained of no pain whatever. Same treatment was continued.

March 11th.—Saw him this A.M. He was remarkably well. Went out driving again to-day, and wanted a beefsteak, but I allowed him nothing but slops. In the evening about 10 I was sent for to see him, as he had another fit. I went at once, but he had just recovered as I entered the house, the messenger did not wait for me but went for Dr. Campbell, who could not attend ; so the messenger went on to Dr. Howard, who arrived almost immediately after I did, and prescribed :

℞ Ammon. Bromide ℥ij ; Capsici Tinct. ℥iv ;
Syr. Limonis ℥j ; Aquae ad ℥vj.

A tablespoonful every hour until quiet or sleep ensues

March 12.—Very little better to-day, weak and nervous, and has a presentiment of coming evil. Wishes to make his will. Saw him in the evening, was a little quieter ; left him asleep ; all evening he complained of a pain in the back, Continued the Bromide of Ammonium and Capsicum mixt.

March 13.—Still very nervous and restless,—so much so that I proposed to him to see Dr. Howard again, which he consented to. Complained of great pain in the back of the neck and spine, for which I dry-cupped him. It seemed to give him instant relief, for he fell into a quiet sleep and continued so all night. Stopped the Capsicum mixture to-day and returned to the Bromide of Potassium and Spirits of Chloroform.

March 14th.—Dr. Howard saw him in the afternoon. On examination found his heart healthy, only excessively nervous.

After the Doctor left he talked quietly and walked with

out faltering; seemed very much relieved in mind when his heart was pronounced healthy. Examined his urine but found nothing remarkable. Continued the Bromide and Chloroform.

March 15.—Better to-day; went out for a drive,—ate slept and walked well. In the evening complained of pain in his back, for which I dry-cupped him again.

March 16th.—Still continues well. Went out driving again, ate and walked well; still had a little pain in the back of the neck, this pain was aggravated at night, so I cupped him again, affording the same relief which lasted all night; this evening, for the first time, he complained of pain in the back of the thigh—continued the Bromide and the Spirits of Chloroform.

March 17.—He was marvellously well all day. Talked of starting for England the following week. Drove himself out with a pair of horses. Seemed very strong and well; no pain in the back,—ate well, and walked as if nothing was the matter, but said he had a little Rheumatism in the back of the thigh.

March 18th.—I was summoned at 1.30 A.M., to attend him in another fit. On my arrival I found him dead.

Family history was good. He had served in the Madras army for about 7 years.

He told me he had suffered while in India from an attack of Hypochondriasis, which was very troublesome both to himself and his medical attendant. While here I had treated him for some minor complaints, but with these few exceptions he had had uninterrupted health.

Autopsy —36 hours after death; weather cold; cadaveric rigidity very marked; body well nourished and fat; muscular system greatly developed; uniform purple discoloration of all the posterior part of the body.

Chest.—I may mention here *en passant* that the left pectoral muscles were absent.

Lungs large—filled with dark blood, slight nodular, fibroid induration at the apex of the right lung—largest and hardest in the left apex.

HEART—not distended with blood; substance flabby—of good color; no opacities or discoloration visible in its cut substance, nor under the endocardium, nor in the fleshy columns; three or four minute white patches of atheroma in the substance of the fibroid ring to which the semilunar segment and anterior mitral segment are attached; no roughening of the surface of the walls on either side of the heart; no disease, in fact, in the heart except the patches of atheroma above mentioned; lining membrane of the ventricles and arch of the aorta deeply stained of a mahogany red from imbibition. Some atheromatous patches without calcareous matter under the lining of the aortic arch. No aneurism of the thoracic or abdominal aorta.

LIVER—large, venously congested, not corrugated nor indurated. Both kidneys normal: one much congested throughout and of dark red color, like liver. Spleen healthy.

HEAD.—Little blood escaped in cutting the scalp and calvaria. Encephalon filled the skull; the membranes were closely applied to brain; the dura mater, normal: not injured at all by the saw or chisel. Convolutions of the convexity and sides of the brain flat and considerable transparent fluid in the sulci and meshes of the pia mater. Extensive extravasation of blood at the base of the brain in subarachnoid space, most abundant and forming thickest layer upon and around the Pons Varolii, and in the neighborhood of the upper and basilar surface of the Medulla oblongata, and upon and around the Crura Cerebri. The extravasation extends forwards in the Pia Mater, as far as the extremity of the Olfactory bulbs, backwards upon the under surface of the cerebellum to its posterior border. It is much thinner in both places than at mid base. On opening the Sylvian fissures, blood is found extravasated in them—more on the right than on the left side—and also along the longitudinal fissure, from the optic commissures in the course of the anterior cerebral arteries. This blood is nearly all black and coagulated; some more recent-looking, redder and not perfectly coagulated, lies on the

surface of the larger, solid extravasation at mid-base [i.e. on and around the Pons Varolii.] The membranes cover all this blood and none of it is effused into the cavity of the arachnoid. The blood is seen to extend down the vertebral canal, forming a black envelope around the spinal cord, in the situation of the cerebro-spinal fluid. Having removed the brain, a few detached superficial small extravasations, as if from minute ruptures, are seen on the sides of both hemispheres, especially over the posterior lobes, but not reaching the upper surface of the brain.

On slicing the cerebrum, the punctæ vasculosæ are not large nor numerous ; the cerebral substance is not at all congested ; both lateral ventricles filled with transparent serum, of the colour of weak claret and water. A long, narrow, black coagulum extends from the central cavity of the right lateral ventricle in the course and along the external border of the choroid plexus down into the middle cornu, and back into the posterior cornu. The same appearance is found in the left lateral ventricle ; the 3rd ventricle is filled with a small, black blood clot which can be traced thence into the 4th ventricle, which cavity is also filled with coagulated blood. In none of the ventricles is there any discernible laceration of the brain-substance, the commissures of the 3rd ventricle being intact. No extravasation is found in the substance of the brain anywhere.

On examining the blood vessels of the brain at the base many of them present opaque, white patches of atheroma. On the left vertebral artery, a circumscribed white fusiform dilatation of the vessel is visible, the enlargement is found on slitting up the vessel to be chiefly one of thickening of the coats at this point ; a similar one is seen at the anterior part of the basilar, and upon slitting up the basilar an irregular opening was found about the middle of its course and on its right side in the neighborhood of where it gives off transverse branches ; it is difficult to decide if this opening had been made by the accidental cutting off with the scalpel of one of these branches : but there appears to

be some pouching of the walls when the vessel is examined from the inside; no sac is found attached to the basilar artery, but that vessel is covered by and occupies about the centre of the thickest extravasation.

On opening the spinal membranes they are found blackened by extravasated blood within them throughout the entire length of the cord. On removing this and slitting up the Dura Mater Vertebralis, a thin layer of coagulated black blood is found completely enveloping the cord down to the cauda. No blood is extravasated outside the spinal membranes.

Some observations on the Preceding Case of Cerebro-spinal Meningeal Hæmorrhage. By R. P. HOWARD, M.D., etc., Professor of Medicine, McGill University.

Read before the Medico-Chirurgical Society, Montreal.

Having twice seen, during his illness, the subject of the interesting paper just read by Dr. Baynes, and having pronounced a favorable prognosis, I gladly avail of the opportunity of making a few observations on the case.

About 11 P.M., on Friday the 12th March, immediately after his third seizure, I found Mr. B. lying on the floor, surrounded by his Medical attendant and other friends. He appeared much alarmed, and talked in an excited but rational manner. His face was natural; head and general surface of normal temperature; no paralysis existed; the tongue did not deviate when protruded; the pupils were alike, and of average size; articulation was distinct; the cardiac sounds were free from murmur, and, beyond moderate excitement of the heart, and considerable mental agitation, nothing else was noticed. He had taken only a sip of brandy and water just before the paroxysm set in, and it was of such short duration, that before the early arrival of Dr. Baynes it had disappeared.

Again, in consultation, I saw the deceased upon the

14th. He exhibited no signs of cerebral disease ; he lay, however quite flat on his back and did not move his head about nor raise it from the pillow while drinking from a cup which he held in his hand. This attracted my attention as it suggested the idea that he either could not or would not raise his head. He complained of feeling very weak, and of having pain in his back ; he slowly, and rather as if it caused pain, sat up that I might examine his vertebral column. No tenderness on pressure or percussion, and no projection of a spinous process, curve or depression existed. The cardiac impulse, rythm and sounds were again found normal, and but for pain in the back and the weakness, which appeared to me out of proportion to the duration and suspected nature of the seizures, he appeared to be almost well.

In reply to the anxious questionings of his friends, I gave it as my opinion that the attacks were probably of the nature of epileptic coma or vertigo, and that they were not due, as the patient had feared, to disease of the heart.

The recurrence of the seizures ; their short duration ; the initial pallor of the countenance, and the absence of paralysis and mental impairment in the intervals between the attacks, suggested the probability that they were the *pseudo-apoplectic phenomena* of *Fatty degeneration* of the heart. However, the youth of the patient, the absence of the physical signs of that affection and the circumstance that he had not previously experienced any symptoms of a weak heart appeared sufficient to exclude such a view. *Cerebral hæmorrhage* seemed to be incompatible with the great suddenness of invasion, with the brief duration,and the complete and prompt removal of the loss of consciousness, with the entire freedom from defective or perverted cerebro-spinal function, whether intellectual, motional or sensory after the seizures ; and especially with the frequent recurrence of the symptoms. *Uræmia* was rendered improbable by the absence of albuminuria, œdema of eyelids or ankles

and of non-compensating hypertrophy of left ventricle, and by the transient nature of the attack, and the non-co-existence of epileptiform convulsions.

It was for these reasons that I fell back upon the conclusion that the case was one of "Epileptic Coma, or Vertigo," that variety of *petit mal* in which there is recurring but transient loss of consciousness without convulsions.

Meningeal hæmorrhage not caused by violence nor by the breaking through of a cerebral hæmorrhage,—i. e., primary meningeal hæmorrhage,is generally by pathologists regarded as of rare occurrence, although Dr. Lidell in his "Treatise on Apoplexy" calls this in question, and relates three undoubted examples of it, and one additional instance respecting which only slight doubt as to it having been caused by violence existed. However, I cannot help thinking that his experence is exceptional in this matter.

The *diagnosis* of Hæmorrhage into the *meninges* from hæmorrhage into the *cerebral substance* can only very rarely be made, and then it is rather a lucky guess than a reliable diagnosis.

"The following combinations of phenomena," according to Dr. Reynolds, who is copied by most authors, indicate a probability of Arachnoid hæmorrhage.

1st. Profound coma without paralysis, or with very slight general paralysis.

2nd. Profoundcoma without paralysis but with rigidity or clonic spasm.

3. Hæmiplegia without implication of the facial muscles.

4. An apoplectic attack without anæsthesia.

5. An apoplectic attack of which the symptoms are sometimes interchangeable and assume a remittent course.

6. Imperfect coma with general paralysis.

Reynolds also says that *severe pain* in the *head* not uncommonly precedes the attack for a certain time ; that the seizure is not generally so sudden as in Congestive Apo-

plexy or in Cerebral Hæmorrhage ; and that "the symptoms are developed seriatim, and rarely simultaneously."

Now, in this case, very many of the above characters failed.

(1). The illness was not preceded by severe pain in the head ; (2). The seizures were sudden ; (3.) The symptoms did occur simultaneously, and (4) the combinations Nos. 2, 3, 4 and 6 did not obtain. Those observed were complete loss of consciousness, which, however, was of short duration, and remissions, or rather intermissions in the course of the illness.

It appears to me that Reynolds has confounded together true primary sub-arachnoid hæmorrhage and hæmorrhage into the arachnoid cavity consequent upon chronic inflammation of the dura mater, the pachymeningitis interna of Virchow. In the latter affection circumscribed pain in the head precedes the other symptoms for a considerable time ; the loss of consciousness, impairment of motility, etc., supervened slowly, are not developed simultaneously, and frequently remit in severity ; hemiplegia occasionally occurs but it is apt to be incomplete ; the affection is observed most frequently in the course of severe forms of insanity, and involves almost always the convexity of the brain.

This variety of Meningeal hæmorrhage must be excluded, and our future investigations must be directed to that much more *rare* affection primary subarachnoid hæmorrhage, of which the case under discussion is an example, before its diagnostic characters can be accurately determined. Unlike the former, this variety appears to be far more frequently observed at the *base* of the brain, and the blood readily diffuses itself more or less symmetrically and widely all over the base, and sometimes down the spinal membranes and up into the ventricles—facts which may yet assist in distinguishing the two affections, the localized hæmorrhage into the arachnoid cavity on the convexity of the brain, and

usually over one hemisphere, from the diffuse extravasation under the arachnoid at the base of the brain.

Finally, the case before us resembles other recorded instances of Meningeal sub-arachnoid hæmorrhage, in the comparatively early age at which the hæmorrhage occured ; in the habits of the patient ; in the absence of premonitory symptoms of a suggestive kind, in the suddenness of the seizures, and in the rapidly fatal issue of the final attack.

Its more striking peculiarities appear to be the recurrence of the attacks of loss of consciousness ; the transient duration of each attack ; the prompt and complete recovery of the faculties after the first three seizures ; the pain experienced in the back and thighs ; the extensive disease found in the blood vessels after death, and the large effusion of blood along the entire length of the cord in addition to that within the cranium. It may be that the extravasation of even a little blood about the pons and medulla oblongata sufficed to produce instant (but slight) shock, or as Trousseau calls it " cerebral surprise," during which further hæmorrhage ceased, and from which in consequence of the small amount of extravasation, or its wide diffusion, so that it failed to exert much pressure, recovery was prompt and complete. The second seizure which occurred very shortly after the first, may be referred to fresh bleeding during reaction, and while the patient was exerting himself. The subsequent seizures probably coincided with fresh extravasations. The pain in the back and thighs may be accounted for by the presence of the blood in the spinal membranes where it must have compressed the nerves. The *absence* of paraplegia and anæsthesia has been noticed by other observers in these very rare cases of hæmorrhrge into the spinal meninges.

The existence of well marked atheromatous disease of the blood-vessels is interesting, first because such condition is nearly always present in idiopathic cerebral hæmorrhage ; and secondly, because of the early age at which the arterial

degeneration had attained such development. The miliary aneurisms of Messrs. Charcot & Bouchard were not carefully looked for. This is of less conseqence in this instance than might at first sight appear. The authors just named do not refer *Meningeal* hæmorrhage to these miliary aneurisms, but extravasation into the cerebral *substance* only. And some high authorities (Rindfleisch, Niemeyer, and others), deny that they produce copious hæmorrhage, and affirm that they develop merely punctiform extravasation.

Montreal, 2nd April, 1875.

Case of Wasting Palsy, with Remarks by JOHN D. CLINE, B.A., M.D.

(Read before the Medico-Chirurgical Society, Montreal.)

William Brownlow, aged 14, was admitted into the Montreal General Hospital on the 6th of March 1875, under the care of Dr. Roddick, and is at present under the care of Dr. Reddy.

He has three sisters and three brothers alive and in good health,—some younger and some older than himself. His father was a butcher by trade, but has followed farming for several years ; he is a delicate man, having suffered from a severe form of dyspepsia for the last three years. The patient knows little of the family history on the father's side ; has heard of his father having two brothers, who are both dead. His mother had two sisters, who died from fever, scarlatina he thinks. Maternal grandfather still alive. Maternal grandmother died at the age of 80. Father and mother both very temperate. Patient has always been more delicate than the rest of the family, suffering frequently from what he calls "sickness at the stomach." Has always had full power and free use of his limbs till the time of the present attack in August, 1872. Has never been hard worked, doing only the light work about the house. On the 5th of January, 1868, (he is very particular about dates) he received a kick from a horse on the forehead, which injury

laid him up for six months. He was stunned by the blow but soon regained his consciousness. While he was laid up from this injury he suffered great pain in the head ; some pieces of necrosed bone came away. There is a scar and depression in the bone marking the seat of this injury.

It is situated directly over the frontal sinus. He recovered perfectly from this, and has never suffered any inconvenience from it since.

For the last three years he has had a spot of eruption, vesicular in character, about three to four inches in diameter, over the point of the right shoulder. Never any eruption anywhere else on his body,

On the the 3rd of August, 1872, got up "all right" in the morning. It was a wet, rainy day. The patient went out with his brother, barefooted, to pick raspberries. In the afternoon he had a headache but was not sick. Next day (Sunday) he was sick in bed all day, vomited, and his headache was very bad. On Monday he was better and went to the brook for a pail of water. On the way he felt his legs giving way under him. In about five minutes he got up and walked home. At night in walking across the floor he fell again. Got up and got on a chair by himself but his legs felt very weak. Slept well that night, and in the morning found he could not walk at all. He could stand alone, but whenever he attempted to move he fell. His legs remained weak and got "awful itchy' for a day or two. This itchiness was soon replaced by a severe steady pain all over the limbs from the buttocks to the feet. Never had any pain along the spine on movement or pressure ; never had sensations of constriction around the abdomen. The pain was relieved by hot fomentations. It lasted for about six months, with occasional intermissions of an hour or two Never had cramps or twitches in the muscles ; never had sensation of numbness nor any peculiar sensation besides the itchiness and pain. During these six months he remained in bed, his legs growing weaker all the time, and he noticed them growing smaller. About a month after his

illness began, Dr. Hamilton was sent for, who gave him medicine internally and applied a blister over the sciatic nerve, and gave him a liniment, which he says took away the pains. As soon as he got rid of the pain he stopped doctoring. During all this time his general health was good. He is of opinion that his legs have not grown any weaker or smaller since the first year of his illness. The right limb has been throughout stronger than the left, he says. There is a patch of long hair three to four inches in diameter on the anterior aspect of the right thigh, which he says has grown since his legs began to get weak. No admission of masturbation can be got from him. No history of any exposure to lead poisoning.

He insists that he could run and walk as well as ever he could until after this exposure to cold and wet.

Present Condition.—The upper part of his trunk and upper extremities are well developed, but his legs are little more than bone. He cannot walk at all. His mode of progression is by his hands, his heels being close together and resting against his buttocks and held there by a strap passed around his legs and over his neck. In this way he is very active, and can go up and down stairs with considerable ease, proving the strength of his arms and upper part of his trunk. He can stand for a short time with the aid of a table. The only support that he gets from his limbs, is from the right one. When standing his appearance is peculiar from the great exaggeration of the lumbo-sacral curve of the spine which arises from atrophy and weakness of the erector spinæ muscles, as well as from atrophy of the gluteal muscles. This is also noticeable almost to the same extent when the patient is lying on his back, and the curvature cannot be reduced by pressure even. This is due to the fact that these muscles were weak from the first and that the shoulders were thrown back in order to place the centre of gravity as far back as possible, so that the vertebræ have become permanently moulded in this position. Also

when lying on his back the limbs are rotated inwards which is due to atrophy of the gluteal and other external rotators. and the weight of the foot.

The measurements of his lower limbs are as follows :—

Around left buttock over groin	15½ inches
Around right buttock over groin	17 "
Left thigh 3 inches below trochanter	10½ "
Right " " "	11½ "
Left 7 " "	9 "
Right " " "	9¾ "
Left thigh just above knee	8 "
Right " "	8½ "
Calf of left leg at largest part	7⅛ "
" right " "	6½ "
Right and left feet at instep are equal	7½ "

Thus while the right buttock and right thigh are larger than the left buttock and thigh the left leg is larger than the right; still all the muscles are atrophied. There is not a single muscle of the lower extremities that has escaped. The muscles of the right thigh are in the greatest state of preservation, and retain considerable tonicity, and can be rendered tense at will, especially those on the anterior aspect of the thigh, all those composing the quadriceps extensor. The vastus externus is the largest and hardest of them. All the rest of the muscles of both limbs communicate a dead flabby sensation to the feel. The muscles, flexors and extensors,of the left leg, though much larger than the corresponding ones of the right, are relatively in a much more advanced state of degeneration than those of either thigh. The abdominal muscles are soft and relaxed, more on the left than on the right side and the walls of the abdomen cannot be kept retracted for any length of time without a sense of fatigue in the muscles. When these muscles are contracted the recti are tensest, and the right oblique more so than the left. The spinal muscles do not appear to be wasted much, but when in a state of contraction

they are softer than they should be ; those on the right side more so than the left. As would be inferred from the relative development of the muscles all the movements of the right thigh, flexion. extension, abduction, and adduction, are more easily and powerfully performed than those of the left. These movements of the left are done with a flail-like action. It takes considerable force to antagonise the extension of the right limb. The movements of flexion and extension of the right foot and toes are entirely lost while they are feebly retained in the left leg. If he bend forward when sitting he cannot return to the erect position without his hands on his knees. Thus the degree of voluntary motion is proportioned to the degree of preservation of the muscles. There is almost absolutely no remnant of muscles on the right leg.

Fibrillar tremors are noticed on pressure with the finger in the muscles of both thighs and in those of the abdomen, and frequently in the muscles on the anterior aspect of the right thigh without any irritation, especially when the limb is forcibly extended. These are tremulous wire-like elevations running along under the skin. He never has, and does not now, suffer from cramps or twitches in the muscles. The response of the muscles to the galvanic stimulus is also proportioned to their degree of preservation. I used a powerful induced current of a two-celled battery, which could scarcely be tolerated at all in the healthy muscles. Applied to the anterior of the right thigh it induced a convulsive action of the muscles. The effect was much less on the posterior aspect. On the left thigh and leg it only produced a fibrillar contraction which could be felt but not seen. In the right leg it produced no effect on the muscles, but when over the nerve it would cause the leg to be drawn up. The right gluteal muscles responded more actively than the left, as also the right abdominal more than the left. The left spinal muscles responded more actively than the right. Thus the atrophy is less as we

ascend, though not uniformly on the two sides. Sensation is perfect in the two limbs. There is no morbid sensation as of pain or numbness in the limbs. He says he has occasionally pain in the abdominal muscles, lasting two or three hours at a time. The limbs become very readily cold. His general health is and has been throughout unimpaired. All the organic functions are performed perfectly. Has no difficulty in evacuating his bowels or bladder. I examined his urine and found nothing abnormal. He passed 43 oz., in 24 hours. Sp. Gr. 10.18. Dr. Reddy kindly calculated the quantity of nitrogen in this quantity of urine. It was 368.295 grains.

For the history and some of the notes of this case I am indebted to Dr. Bell, the student who was reporting it, and to Dr. Roddick.

Now, gentlemen, I think there is no doubt this is a case of Cruveilhier's Progressive Muscular Atrophy. We have a muscular atrophy which is progressive, however rapidly, the loss of voluntary motion being proportionate to the degree of atrophy, and the atrophy affecting special muscles or special groups of muscles more than others. But there are some points of peculiar interest in this case. I think to the exposure to cold and wet may be assigned the cause. This is one of the admitted causes. The others are hereditary predisposition, excessive muscular exercise, especially of particular muscles leading to the partial variety, and injuries and diseases of the spine. I am inclined not to connect the disease at all with the injury to the head from the time (four years) that elapsed, from the sudden onset of it after exposure to cold and wet, and from my failing with the greatest care to extract from the patient the history of any weakness in the limbs, or tendency to stumble in walking, previous to this. I have not been able to get any confession of onanism which is sometimes said to be a cause.

The disease usually begins in the upper extremities, the favorite starting point being the thenar region of the hand. But of 105 cases collected by Dr. Roberts, who is the author

of a monograph on the subject, and is also writer of the article on it in Reynolds' System of Medicine, it started in the lower extremities in 18 cases. The pain which our patient had for about six months is not a very usual symptom, though according to Dr. Roberts it is more common when cold and wet is the cause. But the most peculiar feature of the case is the suddenness of the onset of the disease and the rapidity of the atrophy. The patient was exposed to cold and wet on Saturday, and on Monday in walking felt his legs becoming weak, and fell, and from this time within a year his legs became extremely wasted, the wasting being accompanied with severe pains during this the most active period of the disease. The usual course of the disease is very insidious, the wasting being first noticed, and the weakness which existed all the time being discovered probably by accident. In this case the loss of power was present before there was any wasting, before there could have been any wasting. Yet this loss of power was not absolute at any time; it was not paralytic in character. There are cases in which the onset of the disease has been thus sudden, but efforts have always been made to explain this by maintaining that the disease had been slowly progressing, and been noticed by the patient by reason of some sudden event, and thus, to make the history of the case coincide with the usual history of such cases. The best view to take of this case, I think, is that it is one of Progressive Muscular Atrophy, complicated with a lesion of the motor centres of the spinal cord. If in the words of Dr. Roberts: "The nutrition of the muscles is placed under the control of a special set of organic nerves, having upward connections with the sympathetic ganglia, and the cerebro-spinal axis which are by no means identical with the central connexions of the motor nerve-fibres of the same muscles," an opinion which is steadily gaining ground, we may suppose that the same lesion affected the central connexions of both set of nerves at the same time, the motor lesion being manifested first, while the process of atrophy was begun.

As to the prognosis in this case, I think it is very unfavorable. The Progressive Atrophy has not been arrested yet. Dr. Roberts says, that the presence of "Fibrillar tremors is a sign that the disease is advancing, as they are never present in muscles that are wholly destroyed, nor in muscles that have ceased to be the seat of action of the disease." The same author says: that if the disease starts in the legs it will probably become general, and that it is more apt to become general when it arises from cold. But *it* will probably run a long course. It has already lasted two years and a half, and according to the patient, has not advanced much lately.

Correspondence.

Sanitary Matters in Montreal. By A. B. Larocque, M.D.

Editor of Canada Medical and Surgical Journal.

Sir,—Since a few years a great deal has been said and written on sanitary affairs, and we may say that little has been accomplished comparatively with what could have been done had we the power to enforce the numerous suggestions recommended in the reports of the Health officers.

His worship Mayor Hingston, whose inaugural address on health was undoubtedly read with interest by every citizen having at heart the prosperity of our city, has lately called together the Presidents of the Police and Health committees, the city attorney, the chief of Police and the Health officers. The object was to know what were the duties and power of the Health committee and of the Board of Health, composed of the Health and Police committees

Mr. Roy the city attorney explained that legally the Health committee was the executive power of the Board of Health; its duties consisting in attention to the general sanitary condition of the city. That in urgent cases such

as when the city is threatened by epidemic disease, the Board of Health, after a proclamation of the Governor General had the power to enforce any measure thought necessary to prevent the spread of epidemic and contagious diseases.

We know that the Government of the Province of Quebec at the last session, in the amendments to the charter of the city of Montreal, authorised the Council to pass any Bye-law which had for its object the promotion of public health, such as compulsory vaccination, domiciliary visits, the disnfection of dwellings, and the destruction of all things considered dangerous, or which might propagate contagion.

At a meeting of the Board of Health held on the 11th inst., the mayor suggested that a sub-committee composed of Aldermen Grenier, McCord, Holland and Mullin and (his worship of course) be named in order to organise the different departments of the Board of Health, viz., vital statistics, inspection of houses, yards &c., &c., of alimentary substances, scavenging, drainage and hospital for contagious diseases. The sub-committee intends to meet once a week at the health department and to report at stated periods to the Board of Health.

The first meeting took place on Wednesday last. All the members were present, also the health officers. His worship read a code of sanitary by-laws presented by the President of the Health committee. After having made a few alterations in some of the clauses it was resolved that the remaining part of the code should be read at the next meeting. It was also resolved that the mayor and the health officers should choose the nomenclature and classification of diseases to be used in the compilation of vital statistics. The president of the health committee suggested that public notice be given in the papers that vaccination would be performed three times a week at the health department, it was adopted and the committee adjourned to next Wednesday.

In performing vaccination regularly at the health depart-

ment, we hope to be able to establish a bureau of vaccine, from which vaccine will be procured in sufficient quantity for the wants of Montreal and the Province of Quebec.

Small pox is at present prevalent throughout the Province of Quebec, vaccine is every where required. Up to this day the want of proper organisation has placed the health department in the position of being unable to satisfy the demand for lymph. We would call the attention of the medical profession to the fact that it is impossible to keep a constant supply of fresh lymph, unless a sufficient number of children come to be vaccinated and return on the eighth day in order to verify the character of the vaccination and to collect lymph on ivory points and in tubes. We would therefore request medical men to induce poor parents to bring their children to the health department to be vaccinated. We would also request the medical profession of Montreal to recommend more generally than has been done heretofore revaccination which is as necessary as primary vaccination. The urgent necessity of revaccination has been evident this winter during the violence of the epidemic of small-pox. A great number of adults vaccinated in childhood, took small pox. We know that if they had been revaccinated, they would have either escaped altogether or else the disease would have assumed the varioloid or modified form, as was lately proved in several cases of revaccinations in which there were no constitutional symptoms, and only a few pustules here and there on the face and body.

The sub-committee will soon ask the adoption of most urgent sanitary measures, such as those which would lead to prevent the propagation of epidemic and contagious diseases, especially of typhoid fevers and small pox, also concerning scavenging, drainage, and inspection of alimentary substances.

We shall call on the medical profession to report the cases of small pox and typhoid fevers which might be under their care.

The intention of the Board of Health is to coöperate with the profession in the arduous task of diminishing the causes of epidemic and contagious diseases, which so considerably increase our death rate. We are confident that the medical men of Montreal who have always shown a great deal of interest and devotedness to the sanitary cause will kindly favor the different by-laws about to be adopted by the sub-committee. The results will no doubt tend to elevate the standard of the medical art and promote the welfare of society.

I remain &c.,

A. B. LAROCQUE. M.D.,
Health Officer.

423 St. Catharine street.

Periscopic Department.

SURGERY.

Severe Prolapsus Ani in a Young Adult treated by Cauterisation with Nitric Acid. — Under the care of Mr. HUTCHINSON.

Prolapsus ani, although so common in children, and not very unfrequent after the middle periods of life, is rare in young adults, and when met with in them is almost always with a history of its having begun in childhood. It is thus but seldom that the surgeon has to treat cases resembling the following one, in which the protruded portion was very large, and had been produced for the first time in a healthy young adult.

Jane D., aged eighteen, a servant girl, was admitted with prolapsus recti on November 10. She was pale and rather stout, but in fair health. The prolapse begun eight weeks before she came in, the bowel coming down when she went to stool. The day before this occurrence she had lifted a

nine-gallon cask full of beer from the floor on to the chair —an unusual effort for her. The gut remained prolapsed for three days, after which it was returned by a medical man. It afterwards continued to come down every time her bowels were moved. Sometimes she was able to return it, and sometimes not. She never had prolapse in childhood, nor did any of her brothers and sisters suffer from it.

From November to January she was kept in bed, took iron internally, and used astringent lotions to the rectum. For a few days in January she wore a pessary, but it did not prevent the prolapse from returning. Towards the end of January, the condition remaining the same—at least an inch and a half of gut being prolapsed every time she went to the closet, — Mr. Hutchinson cauterised the exposed mucous membrane with nitric acid, applying it in broad streaks parallel with the length of the gut. The bowel was returned. Two days afterward she complained of severe shooting pain up the back.

On the third and part of the fourth days her temperature was constantly from 104° to 105°, but after the fourth day her bad symptoms subsided. Her bowels were kept inactive for ten days by opium. At the end of that time she had a motion attended by some pain and soreness, but not followed by any prolapse. About ten days later (three weeks after the operation,) she was discharged. The bowels had been opened regularly every day, and no sign of a return of the prolapse had occurred. Digital examination revealed the presence of distinct ridges on the parts cauterized. There was no pain in the lower part of the bowel at any time after the operation, nor any discharge from the cauterized surfaces.

The occcurrence *de novo* of such extensive prolapsus of the rectum at the patient's period of life is very unusual, and for that reason is worth putting on record, no less than on account of the complete cure which was effected by destroying longitudinal bands of mucous membrane with nitric acid. Although, however, she recovered quickly from the

operation, it is to be observed that she had symptoms for a few days very suspicious of commencing peritonitis—a fact which shows the necessity for great caution in the performance of operations upon the unaltered mucous membrane of the rectum.—*Medical Times and Gazette.*

Nussbaum on the Treatment of Ununited Fracture by Transplantation of Bone.

In the *Aerztlickes Inteligenz-Blatt*, Feb. 23, 1875, Professor Nussbaum, of Munich, publishes a very interesting and practical clinical leeture on the treatment of ununited fracture, its pathology and methods of treatment, and particularly on the treatment by the transplantation of bone, in complicated gunshot fractures, resulting in an open false joint, with great loss of bone-substance and necrosis, where the cartilage encrusted extremities are merely bound together by a long thin tendinous band. As regards the limbs, he confesses that he has had only hitherto one instance in which he has employed the method, but with such a singular amount of success as to afford great encouragement to further attempts in the same direction.

A Saxon lieutenant, twenty-four years old, on July 22, 1870, in the fight at Mars-la-Tour, received a very severe gunshot wound in the right forearm. The ulna was smashed in the middle, the splinters of bone had necrosed, the periosteum had been destroyed, and subsequent cicatrisation had resulted in a false joint, having about two inches and a half of open wound. The two approximating ends of the fractured bone were united by means of a thin fibrous cord Although the radius was intact, the functions of the bone were so limited, and its abnormal motion so exaggerated, that the patient was invalided. On July 14, 1874, the patient being chloroformed, the false joint was exposed. Both ends of the fractured bone were thin, covered with a pointed cartilaginous process, and slightly united by means of a weak, tendinous false ligament. Thc pointed car-

tilaginous extremities and the thin false ligament, being rather in the way than useful, were cut off with strong scissors. Next, the upper surface of the proximal end of the ulna was half sawn through, about two inches and a half from its extremity, and with a sharp cutting chisel this upper piece of the ulna, with its periosteum, was split off, parallel with its upper surface, yet so that the periosteum of the pointed extremity and of the under surface were not both cut through; thus the detached portion of bone had still a slight nutrient bridge derived from the periosteal covering. Finally, the portion of bone thus detached was so deposited in the gap, that its internal upper surface now became external, the under internal, and the outer surface became the upper one. Had the transplanted portion been turned downwards so that the now upper surface had become the under, the periosteal bridge remaining on the under surface must have been much more dragged upon and torn, and it would have been probable that the blood-communication, through the connecting periosteal slip, might have been entirely cut off.

In the gap in which the transplantation portion of bone had been placed, a tolerably deep incision had been previously made into the indurated soft parts, to promote some inflammatory action in the neighbourhood, and to favour the adhesion of the introduced portion of bone. The wound was dressed with carbolised dressing and closed with seven sutures, and subsequently enclosed in a gypsum bandage furnished with a trap-door.

The operation was so successful that in December, 1874, the patient was gazetted to a grenadier regiment.

Professor Nussbaum makes the following remarks on the two great mishaps after fracture, viz., healing bent, or with considerable shortening. Supposing a case is met with within six months, the badly united fracture should be simply broken up again under chloroform, as, before the definitive callus is formed, a refracture is neither difficult nor dangerous.

A linen cloth should be laid on the edge of a table, and the fracture to be rebroken brought quite to the margin. A strong pressure downwards readily breaks the provisional callus, and it is best broken in the direction corresponding with the faulty curve, and should be commenced by extension (for which purpose an extension bandage is most serviceable). Considerable risk is run in refracture, during this stretching, of rupturing some artery adherent to the callus, since the process is never effected slowly but always with a powerful jerk. But if the callus be broken up by bending inwards, the necessary amount of stretching can be conducted slowly and surely. A good position having been obtained, the new fracture can be treated as a simple one.

If six or seven months have passed and the definitive callus have become of ivory hardness and stronger than the sound bone, should any attempt be made at refracture, it would remain intact, and the resulting fracture of the normal bone would render the condition worse than before. Under these circumstances only operation is of use.

Langenbeck employs two processes in the subsequent operative procedure on the bones. After having made a small incision in the skin, he first bores through the callus at the angle ; he then enters a small fine key-hole saw into the hole thus bored, and cuts through the bent bones right and left, to such an extent that merely a thin bridge of the cortex of these bones remains intact. The wound is then carefully cleansed. After granulation has taken place and the integument has healed over, he undertakes as the second part of the operation, the fracture of the remaining thin cortex, and treats it, by means of a gypsum bandage, as a simple fracture of the bone. The idea is admirable. The object of this partial sawing is, that the mass of definitive callus which has become as hard as ivory and could itself not be broken up, is readily ruptured when it has been about three parts sawn through, and the fracture can be effected at

the 'place of election.' It is a matter of fact that the wound effected by boring and sawing portions of the operation produce such inflammatory reaction that the remaining lamellæ thereby become soft and elastic, and so the rest of the operation is rather a bending than a fracture. The most important advantage, however, of Langenbeck's operation, consists in this, that when there is a wouud there is no fracture ; and at the time when one has to be made and treated, there is no open wound.

The American surgeons reduce the bones to be broken later on, simply by drilling five or six holes through them. Szymanowsky saws a wedge-shaped piece out, three parts of the thickness of which he removes, and after the healing of the soft parts, breaks through the remaining portion. Professor Nussbaum's plan is to avoid the sawdust and *debris* arising from the drilling and sawing operations, by using a fine sharp cabinet-makers' chisel. He chisels through about three-quarters of the thickness of the bone, and then withdraws the chisel, allows the wound to heal, and afterwards breaks through the remaining portion.

[The entire paper is one of great clinical interest, not only as regards Professor Nussbaum's own experience, but of that of others ; the reader is therefore referred to the original for greater detail.—*Rep.*] *London Medical Record.*

Cases of Fracture of the Skull.

THE MIDDLESEX HOSPITAL.

Case 3.—*Fracture of Base of Skull, with escape of Cerebro-Spinal Fluid—Recovery.* Under the care of Mr. Morris.

(From Notes by Mr. Lee Macintire, the Dresser.)

Alfred W., aged fifty-two, a grocer, was admitted into Broderip ward on September, 15, 1874, in a semi-stupid

state. He had been drinking, and was knocked down by another man, who struck him a blow on the mouth. In falling backwards he hit his head against a lamp-post.

On admission there was a small scalp-wound above the right ear; the lower lip was contused and cut on the mucous surface; and there was a continuous oozing of blood from the left ear. The blood is described as thin in character.

September 16.—The stupidity about his manner which was noticed when first admitted, and which probably was entirely due to the drink which he had just previously taken, soon passed off. He seems now quite well in every respect, excepting, however, that the oozing of thin blood from the left ear continues. Temperature 99°; pulse 96. Bowels have been freely open. Spoon diet; ice-bag to head.

19th—Suffers occasional headache. No blood escapes from the left ear now, but there is a slight occasional discharge of a watery fluid from the same ear.

20th.—A plugget of cotton-wool which was yesterday inserted into left earhole was found, on removal this morning, to be saturated with what looked like blood-stained serum. With the exception of a slight headache occasionally he feels quite well, and thinks it strange and unreasonable that objection is made to his going out, and even to his getting up. He cannot hear the ticking of a watch held close to his left ear, but recognises the kind of noise when the watch is applied near to the right ear.

21st.—Slight headache; the cotton-wool in left ear is stained with discharge.

29th.—Still discharge from left ear; has occasional headache, and some singing noise in the left ear; keeps his bed, and is still on spoon diet and bread and butter.

October 3.—Has been getting up for a short time the last three days; he has no giddiness or headache when up; there is still a little discharge from the ear; was allowed meat diet for the first time to-day.

8th.—Discharged convalescent, with instructions to take

great care, and to keep very quiet for some time to come.

Remarks.—The continnous escape, in the first place, of "*thin*" blood, then of what looked like blood-stained serum, and subsequently of a watery fluid, together with the loss of power of hearing on the same side, all point to the existence of a fracture through the petrous bone, with laceration of the cerebral membranes. On the other hand, the absence of any symptom of concussion or cerebral irritation proves that the brain could not have been injured by the accident to any appreciable extent.

The next case is one of much interest, and though by no means very uncommon in its nature or its termination, is yet pregnant with instruction when looked at from a clinical point of view. First, it teaches us the same lesson as the three preceding cases—viz., that fracture of the base may occur without injury to the brain, or any immediate consequent brain symptoms; but it teaches the lesson much more forcibly, for the patients in two of those instances were rendered insensible for a time, whereas in this case the man after a few moments protested he felt quite well, and proceeded on his journey as though nothing had happened. Secondly, it shows the necessity of immediate rest after an injury to the head, even though no cerebral disturbance is produced. After fracture of the base of the skull without immediate symptoms, death may, and does often follow in one of two ways: either within thirty-six or forty-eight hours from hæmorrhage slowly going on, perhaps from a branch of the middle meningeal artery, dissecting off the dura mater from the bones and producing compression of the brain, as in this case; or it may be after several days, or even after three or four weeks, from inflammation and suppuration of the membranes of the brain, Death in the manner first named might possibly often be prevented by immediate and prolonged rest and the early application of ice; whilst death from meningitis would no doubt much oftener than is now the case follow fractures of the skull, were not the rules of absolute rest, low diet, and cold applications to the head as commonly insisted on as they are.

Case 4 —Fracture of Skull—Extensive Hæmorrhage between Dura Mater and Cranium—Death in Twelve Hours.

For notes of the following case, which occurred in country practice, we are indebted to Mr. Lucas, the able Resident Medical Officer at the Middlesex Hospital, by whom the post-mortem examination was made.

W. C., aged thirty-one years, a well-built labourer, while leading a young horse along the roadside, attempted to get upon his back, and in doing so fell backwards under the horse, the animal stamping upon the left side of his chest and head. He was stunned, but recovered his consciousness in a few moments; and protesting he felt quite well, proceeded on his journey. No unsteadiness of gait was noticed by the bystanders; but he was observed to retrace his steps for some hundred yards, and then recollecting his mistake, to turn round and continue his journey in the right direction for a distance of five miles. He complained of headache during his walk, but of no other inconvenience. After putting the horse up he went to bed, and soon fell into a sound sleep. His breathing at first was noticed to be rather heavy, but after two or three hours it became stertorous, and his friends, becoming alarmed, sent for medical aid; but the patient died before any could be procured. A period of twelve hours had supervened between the time of the accident and his death.

At the post-mortem examination a large bruise was seen on the left side of the chest, but no other external mark of injury. On reflecting the scalp some extravasated blood was observed beneath the skin immediately above the left ear. On opening the head, the dura mater lining the middle fossa of the skull was seen stripped off from the bone, and a clot of blood equal to an orange occupied a space between it and the skull, compressing the brain in this region; there was no laceration of brain substance. On removing the clot, a fracture presented itself extending through the squamous portion of the temporal bone across the middle fossa of the skull to the body of the sphenoid; but it did not appear to run beyond this point. The lungs were engorged with blood, and the kidneys were congested, otherwise the organs were healthy.—*Medical Times and Gazette.*

Hæmorrhage.

In his second Lettsomian Lecture Mr. Maunder stated his conclusions from his cases of hæmorrhage as follows :—

1. That no operation is to be performed when bleeding, has ceased, unless a repetition of it would directly endanger life.

2. That the bleeding vessel is to be sought at the seat of injury, and to be secured if divided, at both ends, either by a ligature or by torsion ; if only wounded, by a ligature above and below the wound ; or after section, by torsion.

3. That the injured vessel is only to be tied on the cardiac side of, and at a distance from, a wound in it, when the attempt to secure it at the wound has either been made and failed, or when such an attempt would be either anatomically injurious or pathologically useless.

4. That it is desirable to ligature the brachial artery, rather than both radial and ulnar, for secondary hæmorhage from the hand.

5. That ligature of the brachial, while it stops bleeding, also arrests destructive inflammatory changes caused by useless local efforts to check hæmorrhage.

6. That blood flowing from the distal side of a wound in an artery, or ligature upon it, will in the lower extremity be often, in the upper extremity occasionally, venous in colour.

7. That in malignant disease, when the growth cannot be removed and it is impossible to check bleeding by milder measures, the feeding artery may be ligatured in its continuity.

8. Where a part is more or less disorganised, and hæmorrhage renders repair very doubtful, amputation should be performed to arrest bleeding and remove a hurtful member.

9. Indirect compression will occasionally arrest severe bleeding.

10. That both the axillary and the femoral arteries may be wounded, and a pulse be felt at the extremity of the limb.

11. That a wound in an artery may be recognised by the warm blood impinging on the inserted finger.

12. That a direct compression upon the bleeding point will often succeed *after* the main artery has been tied, though it failed *before* ; and this fact is a justification for tying a main vessel.—*The Doctor.*

MEDICINE.

Dr. Richardson, F.R.S., on Action of the Septinous Poison on the Production of Fever.

In a lecture delivered by Dr. Richardson before the Society of Medical Officers of Health, at their last meeting, a new theory was offered on the action of the poisons of the contagious diseases in the production of symptoms which mark those diseases, and especially the symptom of fever. In a lecture delivered before the same Society, in the year 1865, the author detailed his original experiments on the poisonous action of an organic substance he had obtained from the sero-sanguineous fluid that had been removed by Mr. Spencer Wells from the peritoneal cavity of a woman suffering from pyæmia after the operation of ovariotomy. To this organic poisonous substance he (Dr. Richardson) at that time gave the name of septine, and he showed not only that it would communicate fatal disease to an inferior animal, but that the same disease could be communicated from the secretions of the primarily infected animal to other healthy animals in direct series. He also showed in the same research that the organic poison could be made to combine with acids so as to form salts which retained the poisonous qualities of the original substance. That a similar poisonous substance is present in decomposing blood, and that the poison can be transmitted in a series of animals, have since been confirmed by the independent researches of many physiologists, and the fact may be considered as fully established, although great difference of opinion still remains as to the nature of the organic product, some assigning to it purely physical, others vital properties.

We may be able by and by to discuss these different views at length. At present we are intent only to indicate the new theory which the author, whose communication we now notice, offers as to the mode in which the organic poisons produce their peculiar effects. On this important

inquiry he has been occupied ever since his researches in 1865, and the result is to the effect, that the poisons exert their deleterious action through the property they possess of setting at liberty the oxygen of the blood in undue quantities in the extreme circulation. By way of experimental demonstration, Dr. Richardson took specimens of solutions of peroxide of hydrogen, and inoculated them with points of different organic poisonous animal substances—viz., decomposing blood, pyæmic poison, pus, fibrine, and vaccine lymph. In the presence of all these bodies, oxygen began to be immediately liberated from the solution. Other organic substances—mucus, for instance—would not liberate oxygen, a fact which could be applied (as was shown by an experiment) for diagnosing mucus from purulent matter. Proceeding with his demonstrations, Dr. Richardson charged blood with oxygen from the peroxide solution; then, by inoculating this blood and setting oxygen at liberty, he showed the temperature of the blood rose 4° Fahr. In his further observations, he explained that these organic disturbing substances are themselves decomposed in the process of the change they excite, and that they all seem to be derived originally either from fibrine or cellulartissue.

The conclusion arrived at, and which was advanced admittedly as a theory in its present state, is that the fever-producing poisons act in the way described by setting oxygen free in the blood in undue proportion. The theory, it was urged, explains the phenomenon of remittency. The accession of fever is due to the presence of the poison, but as the poison becomes destroyed the disturbance ceases until a new charge is locally produced and carried into the blood. The theory also explains the phenomena of those malignant, contagious diseases in which death occurs very rapidly, with symptoms of asphyxia and convulsion. Here, it is assumed, the liberation of oxygen is sudden and complete, and the blood so surcharged with poisonous matter that it cannot duly absorb and fix oxygen in the pulmonary circuit. Thus an asphyxia commences from the blood itself

Some therapeutical considerations brought the lecture to a close. It was shown that certain medicinal substances, among which quinine was specially named, counteract the different poisons in their power of liberating oxygen.

Our readers will gather from this summary that a new field of inquiry on the subject of the poisons of the contagious diseases is opened by these researches. That the inferences drawn support the physical side of the question may naturally be expected, coming as they do from an author who for so many years has been one of the most prominent exponents of the physical theory of contagion *The Lancet.*

Lewin on Infectio Sine Coitu.

Dr. Lewin brought before the Medical Society of Berlin (Pick and Auspitz's *Vierteljahrschrift für Dermatologie und Syphilis*, 1874)some instances of syphilis communicated through kissing, suckling, and inheritance, which illustrate several important points in the natural history of the disease. In the first group of cases were two women and their children. One woman had an indurated scar on the lower lip, and a maculo-papular eruption of the body. She had noticed in the seventh month of her pregnancy a pustule on her lower lip ; having also for some time previous remarked that her husband had sore lips. This pustule left a hard scar. The child, born prematurely, had several spots and small ulcers on the skin, and gummous orchitis. The second woman, having given birth to three healthy children, was infected by suckling a syphilitic child. She had a hard sore on the right nipple and constitutional syphilis. Lewin holds that these cases establish, among other better known facts in the natural history of syphilis which he enumerates certain points less generally admitted, viz., that a woman even when infected in her latter months of pregnancy, and suffering only from early secondaries, may give birth to a child who presently shall have a tertiary form of the

disease; and again, that tertiaries do not need mercury for their production. The next proposition he laid down was, that the symptoms of inherited disease which manifested themselves at birth may disappear without any treatment. The disorder may then become latent, and break out again several years later. [Though this is doubtless a correct statement, Lewin does not adduce any evidence in this paper to confirm it.]

In the following group, a woman with a child at her breast, by giving suck to a syphilitic chid, was inoculated herself, and subsequently infected her own child and her husband. The husband died not very long afterwards from cerebral affections, which the *post mortem* notes proved to be syphilitic. The woman was married to a second husband, who never had syphilis, notwithstanding that his wife had frequently syphilitic affections of the pharynx and larynx. Two children resulted from the second marriage, making her offspring three. The child of the first marriage, who had acquired syphilis at her mother's breast, was treated with mercury, and the symptoms disappeared. Nevertheless she must have had further troubles, for when examined there were found scars and adhesions of the soft palate and a notch in the epiglottis. She, moreover, has suffered from her sixteenth year from lupus of the thigh, and periostitis of the os frontis and tibia, continually relapsing. At seventeen she married a man not previously syphilitic, who died a year and a half afterwards from tubercular meningitis. A premature child was born, who lived fourteen days. Two years later she was married again, and has now a child seventeen months old, who has scrofulous lichen and a gummy ulcer of the thigh. To continue the history of the children of the second marriage of the first woman; one died of syphilis at five and a half months; the other, now a girl aged thirteen, was healthy till her sixth year, when syphilitic eruptions appeared which continued for five years. This family is a striking example of the long duration of the syphilitic poison, and how deeply it penetrates into the

organism. Further, one of these cases shows that a child may inherit syphilis which will not become apparent for several years subsequently to birth. Probably many cases of ulcerating skin-disease, especially lupus, are really manifestations of syphilis. Lastly that hereditary syphilis can be derived solely from the mother is also clearly shown by these histories.—*London Medical Record.*

BERKELEY HILL.

A Danger of Ether at Night.

Dr. Wm. Hunt publishes in the *Philadelphia Medical Times* a very important caution as to the use of this agent at night—viz., that the lights should always be *above* the operator and etheriser, and the neighbourhood of a low grate or open stove should be carefully avoided. The vapour of ether is very heavy, and falls rapidly, as anyone can test by pouring a little of the liquid into a saucer and watching it roll and fall over the slides. One of the most exciting and seriously threatening scenes that Dr. H. has ever been engaged in happened, he says in this way:—"A man required amputation of the arm (which was crushed by an engine) high up. There was, fortunately, just room for the tourniquet. The residents of the hospital, together with Drs. Agnew and Herbert Norris, were assisting. The latter administered the ether from a large sponge, and placed the bottle on a chair at his side. I had just removed the dangling fragments of the limb, when an assistant brought a candle close to the stump, and almost directly under the sponge. Instantly we were in a blaze. Dr. Norris involuntarily started back, and, in doing so, knocked over the chair with the large ether bottle, which broke! Its contents were quickly spread, and the whole ring of the amphitheatre was on fire. A nurse lifted the patient from the table and placed him on the floor. Fortuuately, the tourniquet held. Others sprang into the side wards and seized blankets, coats, and everything at hand, and we soon stamped the fire

out, but were all more or less singed. The walls of the amphitheatre bore evidence for a long time, in the scorched wood and blistered paint of the danger. The exposed parts of the patient were superficially burned, but he never knew what had happened. He was placed on the the table, and the operation was finished. The thorough anæsthesia here was fortunate for all. Had the fire taken place earlier, terror and excitement from ether combined would have made the man uncontrollable, and a fearful panic might have occurred in the hospital. As it was, no alarm was spread beyond the room."

Night operations with ether should, therefore, only be those of absolute necessity, and with the cautions enjoined there need be no danger. Chloroform, not being inflammable, has a great advantage over ether in this respect; but Dr. H. is afraid of it.—*The Doctor.*

Crayons of Iodoform.

M. Gallard prescribes crayons of iodoform, which he allows to remain in the cavity of the neck of the uterus, retained in position by means of a tampon of cotton. These crayons are used with advantage in cases of superficial ulceration of the neck which has invaded the cavity. The formula is—

R Iodoform, in very fine powder, ʒiiss.;
Gum arabic, finely powdered, gr. viiss.

Sufficient mucilage to make into a pilular consistence. Divide into ten cylinders each about one inch long; dry in the air for twenty-four hours. Each crayon contains a little less than a grain of iodoform. These cylinders are hard and resistant; they may be divided into morsels without breaking.

They become disintegrated in the open air, and much more rapidly in the uterine cavity. In order to preserve these crayons, they should be sealed in a dark and air-tight bottle.

We should think this mode of employing iodoform would be useful in other localities.—*The Doctor.*

Transport and Inoculation of Virus by Flies..

An interesting paper on this subject from the pen of a French veterinary surgeon, M. Mégnin, appears in the second number of Robin's *Journal de l'Anatomie.* M. Mégnin observes that the idea that the spread of charbon or the "pustule maligne" amongst cattle is due to the introduction of the poison by the prick or bite of flies is widely spread, both amongst the populace and men of science: some of the latter indeed, like M. Davaine, going so far as to maintain that the inoculation is always effected by this means, notwithstanding the fact that charbon has been known to be propagated in severe winters, when not a single fly could be detected in sheds or stables.

So recently, however, as October, 1869, M. Raimbert reported to the French Academy of Sciences some precise experiments he had made, from which he concluded that the flies effecting the transport of the poison were not such as possessed pricking instruments (*mouches piquantes*), but those with soft probosces; that such flies having fed on decomposed or diseased substance, carried the poison by means of their feet, wings or probosces to healthy animals, and that the poison possessed the power of penetrating the skin. In another memoir, presented by M. Davaine in 1870 who had worked at the subject independently, the same conclusion was arrived at in regard to the fact that flies with soft probosces, like the common blue bottle, were capable of communicating the poison; but this observer was of opinion that some lesion of the skin must exist, and hence imagined that in the majority of cases one or other of the biting flies belonging to the Tabanidæ or Stomoxidæ was the real culprit. M. Mégnin calls attention to a remarkable report made by M. Tisserant, of Lyns, on a formidable epizootic affection that ravaged the plain of Candrieux in the Department of the Rhone, and which he found to be due to the simulium maculatum belonging to the Tipulidæ a family of Diptera. The bites of this insect produced sharp

pain and swelling of the part, followed by colic, dyspnœa, tumultuous action of the heart, and death in from four to twelve hours. M. Mégnin had the opportunity of watching the effects of multitudes of these flies in the garrison of St. Michel, in 1869; but, to his surprise, though the animals were covered with them, and severely bitten, no serious effects were observed. He consequently considers himself justified in drawing the conclusion that two conditions are requisite for the transportation of poison by flies—first, that there is an animal already affected with charbon ; and then, that certain flies, amongst which the Simulium, Stomoxis, and Tabanus deserve special mention, feed on them, and by their bites transmit the poison to healthy animals.—*The Lancet.*

Case of Obscure Nerve Disorder. By C. Handfield Jones, M.B. Cantab., F.R.S., Physician to St. Mary's Hospital.

J. B., aged twenty, female, single, admitted September 12, 1874. Short, of broad build, not anæmic ; sent up from the country. Catamenia regular ; pulse feeble, languid ; skin cool ; appetite not good. Has been unable to speak above a whisper for more than seven months, and has had sores on her left leg four months. At inner side of leg, a little above the ankle, there is a small separate sore, besides a group originally consisting, as it seems, of three, but two have coalesced. They are enclosed by a thickened area of dull red skin; they look cachetic, and not in process of repair ; are rather deep, and produce a watery secretion. She says that her leg was all in a blister at first, from her knee to her foot ; the sores came after. No mechanical injury to leg. The epiglottis appears normal, but the lining membrane of the upper opening of the larynx is red and somewhat swollen. The aspect of the ulcers was suggestive to me of a specific cause—viz., syphilis ; and in this view two other good observers coincided. No other indication

of syphilis was detected, unless the laryngeal hyperæmia should be considered as such. Under tonic remedies, including small doses of opium, which were administered for the first nine days, no improvement took place ; on the 21st the ulcers were deeper and more sloughy. Pot. iod. was then given, at first in gr. v. doses, increased soon to gr. x. By October 5 some, but not much, improvement had taken place. She was now ordered Plummer's pill, gr. v. ter die, and on the 12th ung. rubrum mitius as a dressing to the sores. The report on the 19th is that the ulcers are healing well; on November 2 they were just well. The pills had been taken up to October 26. From October 12 to 26 she took ferri et quin. citrat gr. xx. ter die, and for five days previous strychniæ gr. 1-20 ter die. All this time the voice continued soundless or whispering; once only, when the sister pricked her accidentally, she spoke out loud. From October 26 to November 16 I tried assafœtidæ gr. x. in pil. ij. 2dis horis for six days ; then ferri sulphas gr. x.—xx. ter die for seven days ; then atropia gr. 1-100, acid nitrici *m*j., aq. ℥ss. ter die for the rest of the time, with a nightly aperient of podophyllin gr. j., aloes gr. ij., ext. hyoscy. gr. j. ft. pil. The ulcers were now well, but the aphonia remained provokingly persistent, though in addition to the above means faradisation had been pretty thoroughly employed externally, and also, though less effectually, internally with Dr Mackenzie's electrode. I do not think the instrument was brought fairly in contact with the vocal cords, but probably with the transverse arytenoid and crico-arytenoid post. muscles. I now returned to the strychnia in the same dose as before, with *m*ij. acid. nit. In five days her voice was so much improved that it was quite audible ten yards off, and it continued as good, or even improved, until her discharge on December 1. The ulcers remained well. Her voice remained quite good until February 27, when she lost it again. I saw her on March 1, looking rosy and well, but aphonic. Strychnia was ordered again.

Remarks.—Three features of this case deserve some comment—(1) the ulcers, (2) the aphonia, (3) the general condition. That the ulcers were syphilitic is rendered very probable by the circumstance that they healed under the employment of mercurials locally and internally, but proved refractory to other medication. They were of tertiary character, and it is noteworthy that no other indications of syphilis seem to have existed, and that she had not the aspect of syphilitic cachexia. I do not think it was impossible that the syphilis was hereditary, having regard to the patient's bearing and character, and her good behaviour while in the hospital; but it is more probable that it was acquired in the usual way, as there had been thick yellow discharge on two or three occasions previously. The genitals examined by the ward sister presented no obvious signs of former lesion. The aphonia was, I believe, such as is usually termed hysterical, and depended essentially on a functional paralysis of the nerves and muscles concerned in phonation. Had it been the result of chronic syphilitic laryngitis there would have been more evident lesion in the larynx, and some decided improvement would have been effected by the mercurials. Though no apparent improvement ensued from the first administration of strychnia or from other tonics and electricity, I do not think they were useless. They contributed to amend the nutrition of the nerve and muscles, and so prepared the way for recovery. We are often too apt to attribute a result to the last agent employed, without taking into account those which have preceded it. No doubt some will regard the recovery as spontaneous, but as far as I could discover, no other agencies than medicinal were at work; and hysterical aphonia is apt to be very persistent, if some measures are not employed to break the spell. Besides, strychnia is quite a rational remedy for states of functional paralysis. That the patient's *morale* was good, and that defective volition had no more to do with the aphonia than with the ulcers, I fully believe. The general condition was one of evident depression; a

feeble miserable pulse, with a cold, dull red skin, told of a languid circulation, which imperfectly ministered to the needs of the nervous system especially, and rendered it prone to lapse into functional paresis. Like enough, also, her circumstances in a poor country village were not of the most cheerful or invigorating kind. Add to this the existence of syphilitic taint, however contracted, as a further impairment of vitality, and we have probably enough to account for aphonia, or any other nerve disorder. That in this condition, and with tertiary ulcers, mercury should prove successful, while pot. iod. failed, is an exception to the accepted rule, but not, I think, a very rare one.—*Medical Times and Gazette.*

Action of Morphia Injected Subcutaneously.

One thousand experiments were made upon himself by M. Chouppe. He found that morphine injected in a painful spot developes its anæsthetic action in two to two and a half minutes earlier than when injected at a distance. Pain ceased sooner after direct than after general application. A direct proof of the local action of the drug was derived from the employment of concentrated solutions. While an injection of distilled water and a weak solution of morphia (1-150) caused sharp pains at the point of insertion, strong solutions (1-50 or 1-130) cause no perceptible pains. Therefore it is better to inject at the seat of pain and to use concentrated solutions- We can corroborate M. Chouppe on this point.—*The Doctor.*

Retroversion.

Dr. Aveling records in the *Obstetrical Journal* the following anecdote: The postural treatment of retroversion consists in lying or reclining upon the sides, or, still better, upon the face. Prostration also is an admirable attitude. A remarkable anecdote in support of this is told of a lady suffering from retroversion, who made her complaint the subject of prayer, and was surprised to find it answered only whilst she was upon her knees. All pain ceased during the devotional act—that is, when she unconsciously adopted the proper postural treatment.—*The Doctor.*

MIDWIFERY.

Case of Double Monstrosity: Maternal Impression. By C. Robert Thompson, M.R.C.S., Eng.

On November 18th, 1874, I was called to assist Dr. Bourns of Oxted in a case of difficult labour. I found that the patient, who had borne several children without misadventure, had had labour-pains, more or less for two days; that six hours before my visit, the head had been delivered by forceps, having been within reach, and making no progress for some hours previously; and that all the effort and power that had been applied had been insufficient to deliver the body. The woman was tired and full of apprehension, but her condition otherwise was not unfavorable. On placing my hand on the abdomen, I was led from the size of the womb, to pronounce at once that there were twins A large head and shoulders protruded from the vagina, much decomposed, livid, and with cuticle peeling off at a touch. On carrying my left hand along the child's back in the hollow of the sacrum, I felt a small foot and leg packed down between the pelvic brim and the child's pelvis; and my impression was, that the case was one of locked twin, the obstruction to delivery arising from the lower extremity of the second child having descended below the pelvis of the first. I tried to push up this leg, but unsuccessfully. Taking a firm hold of the shoulders, and using all the force of which I was capable, I could not move the child in the slightest degree. I now extended the arms above the head, wrapped them in a towel, to give a firm hold, and, whilst using powerful traction, made an effort to rotate the trunk. This was successful in moving the body, and by continuing the force, the lower part of the body was brought down. The leg which I had felt proved to be a supernumerary limb attached to the scrotum of the child; and, by continuing my manipulations, I was soon able to bring down the breech and two proper legs of the child. But, now it was evident that a second body sprang from the abdomen of the first;

and by a little further forcible traction, the delivery was completed. The child had one pelvis, with two well formed lower extremities and a third smaller one attached to the sacrum, forming a tripod. Male genital organs and rectum were apparently perfect; there were a single cord and umbilicus. From the level of the umbilicus there were two distinct trunks, each with perfectly formed upper extremities and heads, well nourished and of full size. Plate 83 in Dr. Ramsbotham's *Obstetric Medicine* gives a fair idea of the monster, if a third leg be added. It was remarkable that the body of the second part was pink, and looked as though it were viable, whilst that first extruded was livid and decomposed. The cord did not pulsate; the placenta was removed without difficulty, and the uterus contracted well. When the delivery was accomplished, during which nothing had been said to give the woman a hint of what she had brought forth, I told her that she would do well, but had got a dead child, adding that it was deformed. She replied: "I thought it would not be all right; for I was frightened, at Limpsfield fair, by two men outside a show, who kept hugging each other closely and posturing. I was frightened by them, but could not keep my eyes off them." This fair happened when she was about three months pregnant. Any one who has Ramsbotham's *Midwifery* will see at once that the figure in plate 83 resembles exactly two men hugging in a wrestling match. The mysterious subject of maternal impression has been so well handled in two good papers in the Journal of February 6th, that I will add no more.—*British Medical Journal.*

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CANADA

Medical and Surgical Journal.

MONTREAL, MAY, 1875.

THE MONTREAL GENERAL HOSPITAL.

Last year the Governing Board of the Montreal General Hospital in appointing three Physicians to fill repectively the offices of House Surgeon, Assistant House Surgeon, and Apothecary, determined that those positions should be held for one year only, but that promotion should be the rule, that is to say: a man entering as Apothecary should at the end of the first year receive the appointment of Assistant, and at the end of the second year that of House Surgeon. This appears to be a very excellent arrangement as hitherto the office of House Surgeon has been retained at the convenience of the occupant, which was to a certain extent unfair, if the Montreal General Hospital was to be viewed in the light of an educational institution.

The present arrangement is highly advantageous, as each year there will go forth, to enter on the earnest and responsible duties of a physician and surgeon, one man at least who has had practical experience in the compounding and dispensing of drugs, and also in the actual charge of the sick during the absence of the attending medical officer. We sincerely trust that this arrangement will be carried out in good faith by the Committee, as any further change would be unfair to the gentleman who this year was obliged, in consequence of the above named arrangement, to resign his official position. That he performed the duties well and satisfactorily is proved when we state that on the eve of his retirement, his fellow officers, the Steward, Matron, Nurses and Orderlies of the house assembled and presented him with an address accompanied by a massive gold chain, to which was attached a gold coin, with the following inscription engraved thereon: "Presented as a token of esteem

to Clarence J. H. Chipman, M.D., by the officers and employees of the Montreal General Hospital on the occasion of his retirement as House Surgeon, April 1875."

We congratulate Dr. Chipman on this evidence of the esteem in which he was held by those under him, and as one of the attending Medical staff to the hospital, we can only add that we fully endorse the good opinion thus expressed, and hope that Dr. Chipman's future career may be full of brilliancy and usefulness.

THE VIVISECTION CONTROVERSY.

A storm has been raging during the past few months in scientific and philanthropic circles on the question of the vivisectionists. Much unnecessary abuse has been indulged on the side of the members of various societies for the prevention of cruelty to animals both on this side of the Atlantic and abroad. That these societies do a vast amount of good is undeniable but in carrying out their objects there is no necessity in giving way to prejudice or fanaticism.

Most men shrink from giving unnecessary pain to living animals, but in conducting research by vivisection the operator must abandon all feeling in the matter. In considering this subject it must be remembered that the experiments are not without aim. They are not conducted simply and only as a *passe temps*, an object is to be attained in each instance, and that object the acquisition of knowledge, to be applied in the alleviation of human suffering. In performing experiments on living animals the physiologist follows out the most humane method at his disposal, the animal is placed under the influence of an anæsthetic, so that physical suffering is spared but even without the use of such means, where it is judged to be injurious to the success of the experiment, we cannot think that such an experiment should be abandoned on that account, if the end justifies the means. There are without doubt many problems in science the solution of which can alone be determined by experiments on living beings. The satisfactory solution of these

problems must confer lasting benefit on the human family as such discoveries tend to relieve suffering or avert the ravages of disease.

The surgeon conceives the possibility of performing some surgical operation, (not hitherto performed,) but before submitting his patient to the risk of a doubtful operation, he experiments on a living animal. This he does purely in the interests of suffering humanity and with a view of curing some malady which has baffled his skill under other treatment. The medical jurist or toxicologist experiments on living animals to prove the action of certain poisonous substances with a view to the detection of crime or the saving of life by the administration of a proper antidote Again, it may be desirable to ascertain the living functions of certain organs. How can this knowledge be obtained without experiment on a living animal. The vivisector can not employ one of his own kind for the purposes of research so that he turns to a living animal belonging to some other species. In the whole controversy, if controversy it can be called, there is, on the side of those who condemn vivisection an expression of excessive harshness almost amounting to rankling hate, at what they regard as the horrible and unnecessary cruelty of the experimentalists. On the side of the vivisectionists there is silence, firm and persistent. The opponents not only decry these acts, but endeavour by moral suasion to improve the perceptions of those who perpetrate them, indeed they go a step farther and would legislate against vivisection and check it by the lash and other inflictions, so that the looker on becomes bewildered, and wonders whether the dark ages are dawning once more on the world. As an illustration we copy the following amusing story from the *British and Foreign Medico Chrurgical Review* for April.

A lady who is ardently opposed to vivisection, and who would like to have the letter V branded on the right hand of every vivisectionist, was about to have a dinner party of ladies and gentlemen of her own opinion. The night preceeding this great occasion she ordered of her intelligent fishmonger a crimped skate, and in the afternoon of the important day was astounded by the announcement of the cook that the fishmonger, Mr. Donald (his further name we have pledged ourselves not to divulge), had failed to send in the fish. In dudgeon our philanthropic lady, whose impulses were always ahead of her

reason, whipped on her bonnet and away to the man of the marble slab and cold-blooded viands. She found him putting the finishing touch to the skate, and, having first rated her experimentalist for his delay, went on, "peppery like," as Donald noted, to find fault with his work Donald, of course laid the delay on the market, and as to the fault in the crimping he urged that if he couldn't get the animals until they had hardly a drop of life in their bodies, how could they be expected to crimp like real live ones ? The lady, convinced by Donald's arguments, or fearing further delay, calmed down, and, begging the fish might be sent round immediately, was about to leave the shop, when her eye caught sight of a small moving object on the side counter. "Why, Mr. Donald," she exclaimed, "what is this: it is moving like a watch ?" "That, madam," replies Donald, "is the heart of the skate ; i'ts laid aside for a medical gentleman, wha' studies the heart, to see how long it will just throb." The effect on the lady was electrical. "A vivisectionist !" she almost screamed, "and you, Donald, minister to his barbarities ?" Donald stood aghast ; he expected next moment to hear the request that he might send in his bill. But a new light seemed to fill his visitor's face ; she spoke persuasively, yet decidedly, "Donald," she asked, "who is this wretch ? We may now establish a case," Donald was on guard ; he was between Scilla and Charybdis, for the doctor was as good a customer as the philanthropic lady ; but he was equal to the occasion. "Madam," he replied, "I ken neathing o' the gentleman mair than he's student-like, grave and serious. When he ca's to-day for the heart, if I dinna mind his name and address, I'll e'en ask him." "Do, Mr. Donald, pray do," she answered, and seeing a hansom cab passing the door hailed it instanter. Donald went to open the folding doors of the vehicle for her and heard the conversation with the cab man. "Drive me quickly to the R.S.P.C.A." "To the Arispiciary." says the driver, spelling it to himself. Then down into the cab, "Is it the new resterong at 'Ighbury, mum ?"

"No, it's the animal place ; take me, take me to Mr- Colam !"

Cabby, who thought he now saw his way,—down again into the cab. "At the Zoo, mum, I suppose."

"The Zoo ! No, though I believe that's a bad place enough. Jermyn Street."

And away as fast as a wearied horse,—keeping a hasty lady from friends expected at dinner,—could speed under influence of jerk of rein and cut of whip. away she sped.

Meanwhile, Donald, surmising that his shop might by-and-by be under uncomfortable surveillence, picked up the still beating skate's heart, put it into a gallipot, and away himsrlf with it to his patron the doctor, Could he see the doctor for just a second ? He could, and was shewn straight into the study. The man of science was busy fitting up a reoscope when Donald entered.

"I brought ye, sir, the skate's heart ; it seemed to me to be stopping a wee, so I brought it mysel'." "Thank you much," answered the doctor, taking his treasure and watching the motion. "It is a strange phenomenon."

"Mair strange than ye yerself ken, doctor," said Donald, with a knowing look.

"All God's works are, Mr. Donald," was the solemn reply of the philosopher. "Thank you again, and good day."

And Donald, thinking he had done enough, withdrew. He had saved his patron from being possibly followed by a detective, which was what he wanted.

Whether the lady carried out her mission of mercy to the R.S.P.C.A. we cannot tell ; but certain it is that at her select party, after she had carved up and feasted her visitors upon the animal that had been beflayed and vivisected for her, and had laid a little fault respecting the deficient crispness of the animal on the fishmonger, she explained generally, with tears in her eyes, that she was on the actual track of a wretch who for the pursuit of science cut out the heart itself of living animals, and pursued his researches for hours afterwards on the quivering flesh.

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Surgical Eye Cases.—By T. G. Roddick, M.D., Professor of Clinical Surgery, McGill University, attending Physician to the Montreal General Hospital.

(Read before the Medico-Chirurgical Society, of Montreal.)

Mr. President and Gentlemen:—It is a remarkable fact that among all the papers read before this Society from time to time during the past five years, one only has reference to the surgery of that most important and much-abused organ, the Eye. This is a matter for regret, as in a city like this, when specialists for sundry reasons have never flourished, at all events until very recently, many of our members must have had, now and then, eye cases of surgical interest, which it would have been well had they related here.

The cases, which make up the paper I have hurriedly prepared for this evening, happened among other injuries and surgical diseases treated by me in the wards of the Montreal General Hospital during the first quarter of this year.

Case 1.—W. W., aged 56, laborer, was admitted into the Montreal General Hospital on the 1st March under my care, suffering from certain injuries received while blasting on the mountain side. On examination I found sundry wounds and bruises, mainly of trifling character, on the hands, arms, and face. The eyes were, however, closed, (lids very much swollen) and apparently the seat of the graver injuries. As it was impossible, on account of the

spasm and photophobia to open the lids sufficiently to make anything like a satisfactory examination of the more important structures within, chloroform was administered. Dr. Chipman, I might mention, had succeeded at the time the man was admitted, some two hours before, in extracting from between the lids of the right eye a considerable quantity of dirt, containing minute splinters of wood, from a pole,for ramming down the powder,which the man held in his hand. Under the anæsthetic I removed from between and within the lids of the same (right) eye, what might be considered in this situation an enormous quantity of the same material, with this addition that there were two splinters of wood, jagged and united by a minute fibre, in size equal to the ordinary match, and sticking far into the swollen conjunctiva, in a direction from below upwards and inwards at the outer angle of the eye. Otherwise the ball appeared uninjured, with the exception of a general abrasion of the corneal surface.

Turning to the left eye, I found also an incredible amount of debris, with one splinter much larger than anything yet described,sticking through the conjuctiva and into the cellular tissue at the inner angle of the eye. This looked exactly as if it had been chewed, and one of the little bundles of fibres teased out from the rest had taken a separate and more oblique course, and pierced the sclerotic coat at about two lines from the margin of the cornea. I separated with a scissors, what we might, to be more clear, designate the sclerotic from the conjunctival portion. The latter I rapidly and easily removed, while the other requiring more caution in its manipulation, I extracted with some difficulty, owing to its jagged and uneven nature. The wound remaining appeared about a line and a half in length, with a slight angle about the centre. Through it, following the splinter, immediately flowed a small quantity of vitreous. I was anxious to use a fine suture to bring the edges together as well as possible with the hope of a more speedy union, but there was no needle to be had at the time sufficiently fine

for the purpose. On more careful examination of the eye, I now noticed a slight opacity of the cornea, although this fact was not easily established, owing to a haziness of the aqueous humour from the effusion, probably from the iris, of a minute quantity of blood.

A strong solution of Atropine was introduced into both eyes, and ice water ordered to be sedulously applied. Internally a grain of opium was prescribed to ensure freedom from pain and rest.

The question now arose in my mind as to the possibility of a portion of the splinter remaining embedded in the deeper structures of the eye, where it was destined almost assuredly to bring about trouble sooner or later. Under the circumstances, however, no surgical interference, I take it, was justifiable at this juncture. Careful examination of the lens failed to indicate the presence of any foreign body there, or extraction would have been called for. There was a probability, and a fair one, that the wound in the sclerotic would heal, and the man be left with a damaged and comparatively useful eye.

On the day following the accident, as might have been expected, the lids and conjunctivæ of both eyes were very much swollen and chemosed. The man complained of very little pain, however. To relieve the congestion, I everted the lids and scarified the conjunctiva most freely, the bleeding being afterwards encouraged for two or three hours with hot water fomentations. Atropine was again dropped in, and a brisk cathartic in the shape of a black draught ordered.

March 3rd.—Dr. Chipman informs me that owing to the great supra-orbital pain complained of by the patient last night it became necessary to administer morphia hypodermically, and repeat the same by the mouth in six hours. I found the man still suffering very great pain in the left forehead and temple, pulse 112, tongue furred, entire loss of appetite and nausea. I found the cornea very hazy, and the aqueous beyond appeared turbid—all signs and symptoms of grave import. I now ordered four leeches to the

temple and changed the cold applications for hot fomentations of belladonna and poppy water mixed ; internally, powders containing one grain of Opium and two grains of Calomel, to be given every four hours.

March 4th.—The change for the worse to-day in the appearance of the eye is greater than could have been anticipated. The cornea has now entirely lost its brilliancy, pus being evidently deposited between the layers. There is also a large hypopion, or deposition of pus, in the anterior chamber, all unmistakable signs of general suppurative choroiditis. What was still more serious, however, the man states that since yesterday he has felt an uneasiness about the good eye in the shape of slight darting pains through it, momentary flashes of light, &c., which bother him considerably, and tend to make him desponding and nervous.

I have now fully made up my mind, notwithstanding the active disease present, to extirpate the eye-ball and thus ward off the almost inevitable sympathetic trouble to the other organ, which, by the way, was all this time being rapidly repaired. Dr. Ross, who was also attending the hospital at the time, was kind enough to see the case with me. We argued to the question of paracentesis and incision of the ball, treating it after the fashion of an ordinary abscess, but at length came to the conclusion, that our chief aim being the health of the other eye, nothing short of removal would insure perfect protection.

The patient was at once put under the influence of ether, and the operation of excision proceeded with by the subconjunctival method. This was done rapidly and without any trouble, and the part dressed with the cold compresses. Dr. Ross kindly dissected the eye for me before his clinical class, but failed to find any foreign body. There was, however, slight opacity of the lens as we had made out almost conclusively on the first day. The vitreous was opaque and almost purulent looking in places, while the retinal membrane was raised in little spots and very much congested.

Without further comment, I might state, that the case

made an excellent recovery. The troublesome symptoms, sympathetic in character, already described as occurring in the right eye, entirely disappeared on the second day after the operation. There was a superficial ulcer on the cornea of the remaining eye, however, which resisted treatment for three or four weeks, but at length healed over leaving a slight opacity. The man was discharged from hospital in the sixth week after admission.

CASE 2.—This I thought I would mention, more from its being an extraordinary accident, than on account of its possessing any special interest for us at this time.

T. H., aged 23, a powerful young Irishman, and companion of the man whose case I have just described, was, it appears, also holding the wooden rammer, when the explosion took place. His face was scarred by the fragments of stone, wood, &c., beyond recognition. The swollen condition of his eyelids, however, pointed, as in the other man, to more serious mischief within. With the aid of chloroform I found between the lids of the right eye a considerable quantity of foreign matter, with fragments of stone, wood, &c. Two or three of the splinters of the latter of considerable size, stuck firmly into the conjunctiva in different directions, but were all readily removed.

Turning to the left eye,—as soon as I raised the upper lid a firm clot of blood, equal almost in size to the eyeball, was squeezed out, leaving what proved to be on more care ful examination, an organ thoroughly disorganized, so that I could immediately pass my finger far back to the very fundus without being met by any of the more anterior structures of the ball. I found now what I had not before observed, that a fragment probably of stone, had carried away a considerable portion of the bony external boundary of the orbit, evidently ploughed its way through the structures of the globe and passed out at the inner angle. I washed out the cavity of the orbit thoroughly with a weak warm carbolic lotion, and applied cold lead lotion to both eyes.

For a few days there was very considerable constitutional disturbance, but otherwise the man made a good recovery, while the stump of the left eye is as good as can ordinarily be obtained by excision of the ball.

CASE 3.—This is a case of cataract on which I operated, and which I now bring before you to illustrate some of the difficulties occasionally encountered in this department of ophthalmic surgery.

W. F., aged 64, was admitted into the Montreal General Hospital under my care on the 10th of March of this year. He was found to be suffering from double cataract. That in the left eye being of five years standing ; that of the right as many months, but of rapid growth. The man had been a farmer, and was, considering his age, in robust health. I looked upon the case as one favorable for operation by the extraction method.

March 12th.—The pupil of the left eye, the seat of the more advanced cataract, being fully dilated, and the patient being apparently under the influence of ether, assisted by my friend Dr. Ross, I proceeded with a Beer's knife to perform the lower flap operation, that being at the time to me the most convenient. I had entered the point of the knife fairly into the anterior chamber for a distance of nearly two lines, when the man recovering sensation moved his head violently from side to side. Fortunately I was enabled to withdraw the blade without doing any further damage, excepting the loss of a considerable quantity of aqueous. The question now arose should I proceed working in an anterior chamber partially empty and run the risk of wounding the iris, or close the eye and await the reaccumulation of aqueous. I chose the latter alternative.

March 14th.—The incision made in the cornea the day before yesterday is imperceptible, and the anterior chamber is now full as before. I have decided in again attempting the extraction. The patient being thoroughly anæsthetized I made the lower flap and coaxed out the lens without

the slightest difficulty, nothing occurring to complicate the operation — there was no wounding or protrusion of the iris, and the flap fell into its place and there remained. There appeared to be a small quantity of cortical matter occupying the pupil, but that I thought would be absorbed and hence did not meddle with it. Both eyes were closed with a compress of cotton wool and a bandage.

March 15th.—The man has been perfectly comfortable since the operation, having little or no pain in the eye excepting at times a slight smarting, which rapidly passed off. I looked at the eye to-day for the first time, and was rather disappointed at finding a considerable protrusion of the lower margin of the iris through the wound. An accident which I have known to happen after this operation had now occurred, being the displacement of the flap by the lower lid constantly pressing against it. Otherwise the case promised to be most favorable. The patient could see with very considerable distinctness, counting fingers placed up before him, and distinguishing the various faces round his bed. I did nothing further in the way of treatment than simply instil a four grain solution of atropine, apply a firm compress and bandage the eye as before.

For the three days following I made no change in the treatment, but on the fourth, all inflammatory action consequent on the operation having subsided, I touched the protruding iris (now about the size of a hemp seed) with the solid nitrate of silver. The daily instillation of atropine and the compress were continued.

The application of the caustic was followed for some hours with very great pain and lighted up more inflammation than I thought was beneficial. After three days no improvement in the size or condition of the prolapse was noticeable. I now ordered the part to be brushed each day with a ten grain solution of the nitrate, the atropine to be continued as before. The protruding iris had now assumed

a vesiculated appearance although as large or even more prominent than before. The vision however had not become impaired. The pupil was very much altered in shape being much longer in its vertical than its longitudinal diameter. The caustic solution and compress having signally failed after a fair trial, I desired to adopt the plan recommended by Mr. Bowman, and which has been so successful in his hands, namely, puncturing the prolapse with a fine needle. This I did with an ordinary sewing needle, introducing it far enough to enter the anterior chamber and evacuate a small portion of the aqueous, with a view to relieving the pressure from behind. This proceeding I repeated every third day with a marked improvement each time, and was gratified at the end of ten days to find the prolapse entirely gone and the parts closely and apparently firmly united.

These cases, Gentlemen, may appear, and I have no doubt are to many of you commonplace enough in character, and you wonder, I dare say, why I have taken so much trouhle to lay them before you, but to me two of them, at least, have taught most valuable lessons.

Had I to deal with case 1 again, I believe I should adopt a somewhat different course. I would not fail for instance to close the wound in the sclerotic with a suture, as I originally intended. I have been much struck in looking up the literature of the subject with a case similar in almost every particular with my own—reported by Mr. Lawson in his very excellent little work "On the Diseases and Injuries of the Eye." He says the man came under his care a few hours after he had met with the following accident. Whilst engaged breaking stones. a fragment flew up, and struck him on the left eye. causing a jagged wound in the sclerotic in the lower part of the eye, at a distance from the cornea. There had been evidently an escape of a small quantity of vitreous. The wound was gaping, and its lower edge was prominent and stood away from the upper margin which was somewhat depresssed.

From the man's account it was clear that there was no particle of stone lodged within the eye. As it was impossible to bring the edges of the wound together without a suture, I introduced a single thread and brought the divided parts into apposition. The patient progressed most favorably, and the wound completely united. The presence of the stitch produced no irritation.

It is easily understood, as the same able opthalmologist explained, how difficult a matter it is to heal wounds of the sclerotic when we take into consideration its cup-like character, and the inability to adapt itself to the sudden diminution of bulk induced by an escape of the vitreous. Another difficulty also is the constant oozing of the vitreous through the wound, tending thus to keep the cut edges apart, and also prevent the eye from being again plumped out by an abundant secretion of aqueous. The employment of the suture will, as a rule, by promoting the escape of vitreous bring about a speedy union.

As to the propriety of excising the ball under the circumstances in which I performed the operation. The question might here also be raised,—Would not paracentesis or incision have answered every purpose? As to the former proceeding I find ophthalmic surgeons are not united in its favor. Mr. Lawson, whose opinion I am inclined to respect as equal to any other living authority, states that in severe, bad cases of ophthalmitis which have come under his observation, he is satisfied that the ultimate destruction of the eye has been hastened by an injudicious paracentesis of the cornea. Besides where suppuration proceeds with the rapidity witnessed in the case I have reported, the natural surmise is that a foreign body is present embedded deep in the structures of the ball, and how, it may be asked, could paracentesis be of any permanent benefit here. Incision even might fail to meet the difficulty.

In a word, it must be remembered that we have a sound organ standing in imminent danger of being affected by

sympathy, and that the proceeding which will most rapidly and effectually remove the cause of that jeopardy is *the* proceeding par excellence to be adopted.

As to the third case—that of cataract—I thought I learnt here two valuable lessons, but as the paper is now much longer than I had at first intended, I will be very brief.

It will be remembered that owing to the movements of the patient, only partially under the influcnce of the anæsthetic, I found it necessary to withdraw the knife, whose point had then reached nearly to to the centre of the aqueous chamber. Rather than hazard a failure, I closed the eye and determined to await the accumulation of the aqueous humour. I find it is recommended by some in a contingency of this kind to proceed with the operation using a narrow or Graefe's knife, introduced into the original incision. At the risk of being thought over-cautious, or of incurring the displeasure of my patient, I should pursue no other course than that adopted on the occasion referred to.

The prolapse of the iris which gave so much troüble in the case, I would endeavour to avoid in the future. It is an objection constantly raised to the lower flap operation that the lid is very apt to interfere with the flap. The same does not obtain where the upper section is made, and as the choice simply depends on the dexterity of the operation I should in the future prefer the upper flap operation. Mr. Williams of Boston, I understand, introduces a simple, fine suture into the flaps and in that way draws them nicely in apposition, and I believe that would meet this objection to the lower flap, but as few of us have the dexterity of a Williams, I am inclined to think we might often do more mischief in making the attempt than could be easily repaired.

The treatment of the prolapsed iris is also a matter of some interest to us. It will be remembered that the ordinary measures adopted of compression, and the application of caustics, both in the solid form and in solution, failed completely in having any good effect on the prolapse, and that the method of puncturing with a fine needle, three times repeated only, completely removed it. I might state that I met the cataract patient in the street a day or two after he was discharged from hospital, and that he recognized me.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Dislocation between the 6th aad 7th Cervical Vertebræ; fracture of Transverse Process of 7th on the left side. Death. Autopsy. Under care of DR. REDDY. Reported by CHARLES H. MURRAY, B.A.

Richard Mitchell, aged 55, about 5 ft. 9 in. in height, a very muscular, stout, strong man, was brought to the Montreal General Hospital on the 12th May. The account he gave of himself was, that on the night before he had taken some gin for a cold, and feeling thirsty about four in the morning, went down to the tap for a drink, he slipped down the last two steps and jerked his head to one side; he remembers nothing after that. When he was discovered by the people of the house, he was found kneeling on the lowest step, his arms and head resting on a step above; his head was not jammed in any way. He had never been subject to epileptic fits.

Present state, 12.30: He is sensible but is heavy and drowsy, the effect of the gin, of which his breath smells, not having yet passed off. His left pupil is dilated, the right is of normal size; has no headache. The only place where he feels pain is in the back of the neck at about the 6th cervical vertebra. This is perfect and symmetrical anæsthesia of the extremities and all parts of the body below the line of the clavicles. There is hyperæsthesia of the right side of the neck, so that the state of the vertebral column cannot be ascertained. On the left side there is no hyperæsthesia, but there is perfect sensation. Sensation of the face is perfect. There is perfect loss of muscular power of the lower extremities. On tickling and pinching his feet, there was no reflex action at all in the left leg; very slight in the right; the legs are perfectly

flaccid. The muscles of the trunk are all paralysed, with the exception of the diaphragm and probably of the serratus magnus anticus, which is supplied by the external thoracic nerve. By these two muscles respiration is performed. The abdominal and intercostal muscles are paralysed. Inspiration is performed by the diaphragm chiefly, but if the dislocation be between the 6th and 7th the serratus magnus anticus must aid powerfully. This muscle is supplied by the external thoracic nerve which emerges between the 4th and 5th, and 5th and 6th cervical vertebræ passes behind the axillary plexus and is distributed to the serratus which arises from the base of the scapula and is inserted into the eight superior ribs. When the shoulders are fixed it lifts and expands the upper part of the chest, and also counteracts the diaphragm in depressing and drawing together the lower margin of the thorax and hence renders the act of inspiration more perfect. Expiration is performed by the recoil of the lungs and by the elasticity of the structures generally, and also by the weight and elasticity of the abdominal viscera and parietes causing the diaphragm when released to recede into the thorax, and in proportion as the ser. mag. ant raises the thorax the more will the parts be stretched and the greater will be the recoil. There are sonorous rales over the front of his chest. He frequently tries to cough but can't do so with any force whatsoever, expectoration being accomplished by the diaphragm and possibly of muscular fibres round the air tubes. By these means he is able to get the sputum into his mouth from whence it is wiped out. His abdomen is very prominent. Although there is anæsthesia in the upper extremities, yet there is no loss of motor power. His right arm is kept by his side and forearm at right angles to arm. Shaking continually. His left arm is also kept close to his side, and every few minutes he puts his left thumb into his mouth and sucks it and bites it alternately, but not so as to damage it. He continnally grinds his teeth. His voice is not distinct. He can swallow

liquids easily. His eyelids are usually closed. When spoken to he opens them with a terrified look and stares, regains consciousness and answers rationally. Occasionally there is spasmodic contraction of Levator palp. sup. There is frequent rolling of eyeballs. The position in which he rests is peculiar: he lies on his back, his head drawn towards left side so that his left cheek almost touches his shoulder. There is no rigidity of muscles of neck. The general surface of the body is cool. His face is pale. Heart-sounds barely heard; pulse 54, regular, small; resp. 30; temp. in axilla 96°. There is no mark of injury to head or neck, no bruising. His neck is exceedingly short and thick, so that no symptoms of dislocation or fracture can be made out. He had no headache; bladder distended; no dribbling of urine; no priapism. Dr. Reddy diagnosed dislocation between the sixth and seventh, possibly complicated with fracture. He ordered his urine to be drawn twice daily; air bed, and ol. Tig. gtt. I statim.

13*th, Morning.*—Last night slept but little; he beat his chest with his hands very much during the night. Towards morning, two or three times, his fœces escaped involuntarily. Very liquid in character, and once this morning again. To-day he is in much the same state. Sensation has however returned to the radial side of both his forearms and hands. There is not acute cutaneous sensibility along the line of junction between the sound and paralyzed parts. The dilatation of his pupil is less to-day. When his bed-clothes were being changed this morning, one of the patients held his body in the sitting posture for about a minute; he held his head leaning forward on his chest without any assistance. When laid down, did not suffer any evil consequences. He can shake his head from side to side, and occasionally does so, without experiencing much pain, but not from before backwards. Following mixture was ordered: Pot. Iod., ℥ij.; Pot. Brom., ℥ij.; Tr. Digital., ℥iv.; Aquæ ad., ℥vi.,—a table spoonful every four hours.

Two ounces brandy to be given in divided quantities daily.

6 *o'c. P. M.*—Has had no motion since morning. Has been breaking wind all day. He complains of chilliness, but has no tactile sensibility: He speaks much plainer; is not nearly so drowsy. Asks for porter; he takes milk and beef tea. He has now sensation in all parts of both arms, with the exception of the little finger and ulnar half of ring finger in both hands. He has a greater degree of sensation in his right than left arm. He has recovered sensation of top of chest, above a line passing about two inches above the nipples round the chest, but there is no motion of the intercostal muscles in this region. He complains of a great oppression at his stomach. The pain in the back of the neck is a stabbing pain, and is present all the time; there is no pain at any other part of his spine. Resp., 29. Pulse, 60. Temp. in axilla, 97 2-5. He does not throw his hands about in the same way, but he often rubs the wrist of his left hand over the top of his head for twenty seconds at a time.

14*th*, 9 *A. M.*—Seems a little brighter in his mental faculties. Left pupil nearly same size as right. Has great difficulty in getting up the phlegm; his face gets quite congested in the exertion. In breathing the phlegm rattles in his throat. His pulse is stronger—56; resp., 36. He asked to be moved higher up in bed, and was able to hold up his head when this was being done. The hyperæsthesia of right side of neck is gone. The abdomen is very tympanitic. Still breaks wind frequently. Has a frequent desire to pass his urine, but has not the power. The urine does not dribble away. He has ceased to grind his teeth. Temp. in axilla, 98 3-5. He feels very weak; only takes a few mouthfuls of beef tea, &c. He takes corn starch, sago, and a little porter, as he asked for it. His feet were pricked with pen-knife. No reflex action. Was ordered an injection of Turpentine, ℥ss. · Starch Op.

15*th*.—He has ceased to pass wind from the large bowel since last night. Abdomen very tympanitic, and breathing

is proportionately distressed. His body and limbs have become quite warm. Heart weaker. He is very restless, and says he is going to die. Dr. Reddy ordered O'Berne's tube to be passed up the large bowel to draw off flatus, with a view to relieve the breathing. At 5:30 P. M., O'Berne's tube had been in an hour, considerable amount of flatus and some feculent matter had escaped. The breathing, however, was not much relieved. Dr. Reddy then passed a very fine acupuncture needle into the colon above the cæcum ; a little flatus escaped ; then into the centre of the transverse portion, when a little more escaped ; then into small intestines, when jets of air escaped for a short time. The man asked to be raised in bed, when the needles were withdrawn, and then a considerable quantity of flatus came up the œsophagus. Notwithstanding all these measures, the action of the diaphragm is nearly stopped from the distention, and asphyxia seems most threatening.

16*th*, *Morning*.—Condition much same. The distention of bowels steadily increasing. Temp., 90 4-5 ; pulse, 48. Brandy was increased to 4 oz. Towards evening his temperature was below 90 2-5. About 10 o'c. P. M., he asked the nurse for a drink, and then to be turned on his side. In about five minutes, when the nurse returned to see how he was, she found him dead. He died quietly, and was sensible to the last.

17*th*. *Autopsy*.—Seventeen hours after death, weather moderately warm. Cadaveric rigidity well marked. Face livid ; body not discolored ; both pupils dilated ; left one most so ; no bed sores.

Resting on the rect. ant. majores there was a considerable quantity of dark clotted blood in the cellular tissue. About the seat of injury there was extensive extravasation of blood. There was dislocation between the bodies of the 6th and 7th cervical vertebræ, the 6th projecting forwards in front of the 7th about half an inch. The ligamentum nuchæ, inter-spinous ligament, ligamenta subflava, and post common ligament, were all ruptured, and on the right

side, the inter-transverse ligament. There was dislocation between the articular surfaces of 6th and 7th on the right side. The articular processes on the left side were not dislocated, but there was a fracture extending through the base of the transverse process of the 7th ; this part of the vertebra was broken into three pieces. The only union between the 6th and 7th was by means of the anterior common ligament, which was intact. The distance between the vertebræ was such that the finger could be introduced easily between the two bones. The cord was evenly compressed, and hence the paralysis was symmetrical. The pia mater was injected a couple of inches up from the seat of dislocation, and it was observed downwards for about three inches (as far as the end of bones which were taken out), but it probably extended further down than this. There were a couple of small clots beneath the dura mater, at the seat of injury. The grey matter of the cord was softened and very red. This redness extended up and down for about three-quarters of an inch. The white matter was softened but not congested.

Lungs.—The posterior and dependent parts are extentensively congested. Anterior portion not much congested ; crepitant.

Heart.—About 2½ oz. fluid in pericardium ; two patches of lymph on visceral layer ; none on parietal. Left ventricle hypertrophied. None of cavities distended with blood. A large ante-mortem clot in right ventricle adherent to the walls. All valves sufficient. An atheromatous nodule size of a small pea at the bottom of one of sinuses of Valsalva.

Spleen and liver congested. Kidneys especially congested. The marks where the needles had entered the bowels, visible; slight redness round each aperture, and in one place where several apertures had been made as the needle had been partially withdrawn and again pushed in, several times, the vessels of the intestines, for several inches on

either side, were beautifully injected. Head not examined.

REMARKS.—The dilatation of left pupil was, I think, probably due to irritation of nerve of iris, through injury to the sympathetic system in the neck, possibly of inferior cervical ganglion on the left side.

Case of Stricture of Urethra, almost impassable, cured by Divulsion, by Sir Henry Thompson's American Modified Divulsor, in which the Filiform Whalebone Bougie was used as a director. By JOHN REDDY, M.D., Attending Physician to the Montreal General Hospital, assisted by DR. WILKINS, Outdoor Attending Physician. Reported by C. H. MURRAY, B.A.

Thomas Cahill, aged 45, a native of Ireland, was admitted into the Montreal General Hospital under the care of Dr. Reddy, 30th April, 1875. A stout, able-bodied man, of medium height. Has been for the most part of his life a temperate man. About eleven years ago he had an attack of gonorrhœa, which he says was cured, but from his history it would appear that he had chronic gleet after this, continuing up to the present time. He had no pain or difficulty in micturating till seven years ago, when one very cold day, while shovelling snow in Quebec, he felt a sudden desire to make water, which was attended with severe scalding. The scalding lasted for three or four days and then ceased. The stream began from that period to diminish in size, and has continued to diminish up to the present time. Urinating has since been always attended with pain. If he took anything sour or drank spirits the desire to micturate was frequent and the act very painful. The symptoms were more severe in cold than warm weather. About three years ago his state became more distressing. He had pain and scalding in passing urine; the stream was then, for the first time, of a cork-screw shape and smaller than before; he had to pass his water more frequently and to strain at the same time or it would

not come away; he never could empty his bladder completely. These symptoms were more urgent in the daytime than at night; he very seldom had to get up at all at night, and never more than twice. At this time he sought advice from several doctors in Quebec, who tried to pass instruments, and usually after each attempt some bleeding took place. All failed from not having small enough instruments, as they told him. In the winter of '73 Dr. Lemieux passed a small bougie several times with difficulty and bleeding. This gave him some relief. The doctor told him to go to the hospital, where he could give more attention to him, but he did not go, and from that time up to the present, though his distress has increased steadily, he has had no attempts at passing an instrument made. He has lately noticed a slight gleety discharge from the meatus in the mornings before micturating.

Present Condition.—On attempting to micturate the urine comes away drop by drop. In order to hasten the process he presses the end of his penis to close the meatus and strains; when the urethra is distended, he presses from behind forwards, and forces out a small, straight stream. In this way he can relieve himself in from three to four minutes, but does not completely empty his bladder as some urine drops away afterwards. There is not much scalding or severe pain. After every attempt to urinate he has a slight rigor lasting for a few seconds. Micturition is more frequent in daytime than at night, he rarely if ever being disturbed at night. For three or four hours after drinking spirits or acids he has to micturate every ten or fifteen minutes, and the act is more painful. For the last two years the perineum and urethra are excessively itchy after micturition and he has often scratched the skin off in his distress.

As the stricture was permeable to no instruments in the hospital, Dr. Reddy determined to avail himself of the use of the instruments kindly placed at his disposal by Dr Wilkins, who assisted him at the operation.

4th.—The patient's bowels having been previously opened and his diet regulated, he was brought to the operating theatre and placed on the table for greater convenience than could be obtained in the ward. No anæsthetic was used. 4.30 o'c.: No previous examination had been made, for Dr. Reddy had decided, on account of his previous history, that to avoid irritation he would not explore the passage till he made the attempt with the whalebone filiform bougie, the utility of which he was most anxious to test. The stricture was found to be situated in the membranous portion of the urethra close to the prostatic portion. There were numerous false passages opening near this point, the point of the bougie running into oblique narrow passages to the right. A No. 2 French gum elastic bougie failed to pass; it was caught at the commencement of the stricture, as was also Sir Henry Thompson's probe-pointed catheter modified by Otis. A whalebone filiform bougie 14 inches long, was tried without success, one of smaller diameter 2 feet long also failed. Warm olive oil was then injected into the urethra, the bougies were then again tried but all stopped at the same point and were directed off to the right, the patient who had the most exquisite sensibility of the position of the instrument gave warning whenever it entered a false passage which was an aid, as then the instrument was withdrawn partially, and then slightly rotated, being at the same time pushed forwards. Notwithstanding this all their efforts were unavailing. Filiform catgut bougies were then inserted to engage their points in the lacunæ and false passages, and then the whalebone filiform bougies were inserted to find if possible the orifice of the stricture. Several times this object was thought to have been attained and the other bougies were withdrawn, but it was an illusive hope, again and again the same means were tried. The finest manipulation and dexterous devices being exhibted by both Drs. Reddy and Wilkins but without success, till finally when success seemed to be about hopeless Dr.

Wilkins by a fortunate manœuvre succeeded in passing a whalebone filiform bougie 14 inches long into the bladder. This was felt with the finger in recto. Sir H. Thompson's Divulsor, (American modified) was then carefully introduced by Dr. Reddy over the whalebone guide, Dr. Wilkins holding the latter, till the point of greatest dilatability corresponded to the centre of the stricture, the instrument was ascertained to be in bladder by the finger in recto, the handle was then rapidly turned till the blades were separated so that their circumference as afterwards measured was $1\frac{1}{4}$ in., equal to the amount of dilatation that would be caused by a No. 14 English gum elastic bougie. The stricture was distinctly heard to tear. The instrument in being unscrewed was pushed on farther into the bladder and so avoided enclosing in the closing blades, a fold of mucous membrane, at this point of junction. The operation of Divulsion caused a good deal of pain, after the withdrawal of the instrument some blood appeared, not much in amount, and then a full stream of urine, about 2 oz. were passed. The delight of the man was extreme, such a stream he had not seen for seven years. A No. 11 English gum elastic bougie was passed, this was ordered to be left in three-quarters of an hour and if he took a chill Pulv. Dover gr. x to be given. He was carried to his ward and put in a warmer bed—the operation lasted one hour and a-half.

Evening.—He had several chills since the operation. At 8 o'clock was feverish. Dr. Cline, Assistant House Surgeon, gave him Pulv. Dover gr. x, he had still several chills and could not sleep, At 12 o'clock Dr. Cline gave him Pulv. Dover gr. x, Quinine gr. iii. After this the chills ceased and his pulse became calmer but he did not sleep during the night—had a headache in the morning when he next passed water it came in a full round stream.

5th.—Urine acid, no albumen—has pain in urethra and headache when he urinates, pulse 56 full, firm, strong tongue whitish, temp. $100\frac{1}{5}$; was put on milk diet, milk, beef tea, porridge extra.

6th.—Pulse 53, resp. 20. temp. 98⅔; stream large, no pain, had Liq. Morphiæ mur. *M* xl last night—slept for a few hours—feels quite well to-day.

9th.—Sleeps well ; full stream ; not the slightest pain.

11th.—A No. 10 English Catheter was tried but failed to pass. A No. 11 gum elastic bougie was passed and left in for one-and-half hours.

15th.—A No. 10 Catheter again failed. A No. 7 passed into bladder easily. Steel sounds would have been the proper instrument to have used, but at that time none were available.

18th.—No. 7 Catheter passed. This was also done on the 22nd.

There is not now the slightest difficulty in passing the Catheter and the cure is a perfect one; the instrument will be passed at intervals for some time to come.

This operation shows what may be done with filiform bougies intelligently used, so that it may be said that impassable strictures will be one of the greatest rarities in a surgeon's practice, and it also shows that in future Syme's operation need not be had recourse to till Divulsion has had at least a fair trial.

Periscopic Department.

SURGERY.

Bertholdt on Dislocation of the Cervical Vertebra.

Dr. Bertholdt, of Nurnberg, communicates (*Aerztliches Intelligenz-Blatt*, April 6, 1875) the following case of dislocation of the sixth cervical vertebra towards the right side. The patient was a young man aged nineteen, who in washing his neck sharply turned his head towards the left side, and felt a crack on the right, accompanied by severe pain, and inability to get his head back again into its proper position. An hour afterwards he was seen by Dr. Bertholdt,

who found him with his face congested and red, the head askew, the chin resting on the left shoulder. On the right side there was stretching and undue prominence of the muscles of the neck, and on the left a corresponding hollow. The spinous processes of the cervical vertebræ were not in a straight line but in a curve, the convexity of which was directed towards the right side. The patient complained of intense pain in the neck, and any attempt at movement was unbearable. The diagnosis was easy. Reduction was attempted in the following way. Dr. Bertholdt got on a stool and fixed the patient's head by taking the occiput and chin in both hands, making extension upwards, using the weight of the body for counter-extension, and by means of a subsequent rotary movement, the dislocation was reduced. The patient was able to move his head readily in all directions afterwards, and soon recovered.—*London Medical Record.*

Sir H. Thompson's Operations for Stone in the Adult.

Sir Henry Thombson compares in the *Lancet*, his last 100 cases of operation in *the adult* with Martineau's famous series of 84 cases with only 2 deaths. He has not included any patient below 22 years of age, at which there happens to be one. There are only four patients, including that one, below 50 years of age, while in Martineau's series of 84 there are not less than 54 below that age. Of the 100 cases, sixty-five are above 60 years of age (only twelve are above that age in Martineau's list), and the mean age of the entire 100 cases is not less than $63\frac{1}{2}$ years (the mean of Martineau's entire adult series is under 47 years).

Ninety-six were adult males, four were adult females.

Of the 96 males, 87 were operated on by lithotrity and 9 by lateral lithotomy.

The mean age of the 87 operated on by lithotrity is $63\frac{1}{2}$ years, the oldest being 83, the youngest 22, but only 4 were below 50 years.

The mean age of the 9 operated on by lithotomy was 63½ years also, their respective ages being 36, 59, 59, 61, 63, 70, 75, and 79.

Among the 87 operated on by lithotrity were 4 deaths, the ages were 61, 65, 66, and 81.

Among the 9 operated on by lithotomy were 2 deaths—viz., at 61 and 63.

Thus it will be seen that there was a total of 6 deaths in 96 patients, with a mean age of 63½, by the two operations.

Alluding to what has been termed a run of successful cases in practiee, Sir H. Thompson observes that in this 100 there was one more remarkable than he has ever before heard of. He had a succession of 51 elderly adult cases without a single death. They occurred between July, 1873, and June, 1874. These 51 cases (7 more than Martineau's entire adult series of all ages) had a mean age of 64 years. —*The Doctor.*

Ophthalmoscopy in Cerebral Diseases.

Mr. Bouchut has recently given in the *Hôpital des Enfants Malades* the results of his labours with the ophthalmoscope as a means of investigating the condition of the brain. His lectures, of which an abstract appears in *La France Médicale*, opened with an exposition of the anatomical and physiological relations of the eye with the brain and spinal cord, in order to show the influence of cerebro-spinal lesions upon the optic nerve, the retina, and the choroid. He lays down four laws as to the formation of intra-ocular lesions caused by diseases of the brain, the cord, and the meninges:

1. Whenever the circulation is impeded in the cranium or in the sinuses or meningeal vessels by compression of the ventricles distended by serum or other cause, an arrest of the venous circulation takes place, which produces in the eye swelling, hyperæmia, and œdema of the papilla, varicosities of the veins, and sometimes hæmorrhages.

2. When a tumour with encephalitis, or when partial encephalitis exists, it causes an inflammation which brings about sclerosis of the optic nerve and exudations which imprison the papilla, and, at length cause its atrophy.

3. If the cord is affected either by anterior or posterior sclerosis it acts upon the eye through the great sympathetic, giving rise to hyperæmia of the papilla ending in atrophy. This occurs in locomotor ataxy.

4. In every diathesis and in cases of poisoning when the whole body suffers the eye suffers with it, and we meet with certain forms of neuritis or choroiditis.

M. Bouchut exhibited more than 100 figures drawn during the twelve years over which his researches have extended, and then demonstrated the various ocular lesions produced by diseases of the nervous centres. He showed cases of spinal neuritis, and those which result from locomotor ataxy; and then of neuritis and neuroretinitis, produced by meningitis (tubercular, typhoid, or rheumatic); by cerebral hæmorrhage and softening; by hydrocephalus and thrombosis of the sinuses; by chronic encephalitis, and by the same condition resulting from heart disease; by tumours of the brain; by tuberculosis; by syphilis; by albuminuria; by tuberculosis; by syphilis; by albuminuria; by leucæmia; and, finally, neuritis resulting from paralysis of the sixth pair consequent upon certain forms of epilepsy, hallucinations, concussion of the brain, &c.—*The Doctor.*

MEDICINE.

Kramer on Two Interesting Cases of Variola.

The first of these cases, which are reported by Emmanuel Kramer in the *Vierteljahrschrift fur Dermatologie und Syphilis* (1874), was that of a young man, aged seventeen, admitted to the small-pox hospital at Vienna on June 13, 1874, on the fourth day of his attack. Vesicles were disseminated all over the body, and were beginning to change

into pustules here and there. There was diffused erythema all over the body, most intense at the level of the right femoral triangle : it disappeared on the 15th. On the 17th, the eighth day of the illness, there was a scarlatinous redness of the whole body, deepest on the pelvis, arms and thighs. Redness, with punctured ecchymoses on the velum palati and adenitis of the cervical glands, especially on the left side, were also present. Some of the variolous pustules were in a state of suppuration, whilst others were already dried up. The urine contained albumen. Temperature 103·60 ° Fahr. On the 18th the variolous eruption was dried up ; there was double submaxillary adenitis, with a little albumen in the urine. Temperature 104·72 ° Fahr. On the 20th there was a miliary eruption at the bend of the elbow ; on the 23rd the scarlatinous eruption began to desquamate ; on the 27th erysipelas of the face made its appearance, but disappeared very rapidly. Convalescence set in at the beginning of July, but the patient had two attacks of erysipelas in the face, one on July 20, the other on the 29th ; both, however, were extremely mild and almost apyretic.

The second case was one of variola immediately consecutive on a previous attack. The patient was a young man, aged eighteen, who came into the small-pox hospital on the fifth day of an attack of variola discreta. The pustules began to dry up at the end of a week. On the sixteenth day after the appearance of the disease the patient had violent shivering, a temperature of 103·8 ° Fahr. and lumbar rachialgia. On the 29th day there was diffused generalised erythema, and at night the fever rose to forty degrees. On the thirty-first day variolous efflorescences made their appearance on the face, hands, and feet. The first signs of the drying up of the fresh eruption appeared on the face on the thirty-fourth day, and recovery ensued without any accident.—*London Medical Record.*

Spontaneous visible pulsation of the Retinal Vessels in connection with Aortic Regurgitation. By STEPHEN MACKENZIE, M.B., M.R.C.P., Assistant-Physician to the London Hospital.

Although recognized and described, spontaneous pulsation of the retinal vessels in aortic regurgitation has not met with much attention at the hands either of ophthalmologists or physicians. My object is not to write an exhaustive paper on this subject, but briefly to record a series of cases under my care in which the phenomenon in question was present.

The subject has been studied with great care by Dr. Otto Becker (*Graef's Archiv*, 18 Band., Abth. i., p. 206, of which an excellent abstract is given in the *Royal Ophthalamic Hospital Reports*, vol vii., p. 641, and which is alluded to by Mr. Soelberg Wells in the third edition of his "Treatise on Diseases of the Eye," p. 344).

Dr. Becker, who refers to the independent discovery and previous publication of similar observations by Dr. H. Quincke (*Berlin Klin. Wochensch.*, 1868, No. 34, and 1870, No. 21), found that spontaneous pulsation of the retinal arteries and veins was present in nearly all of a large series of cases where there was aortic insufficiency. He describes, indeed, three kinds of pulsation—arterial, venous, and capillary. The latter—a systolic blush and a disatolic pallor,—he says, he has only lately been able to verify; and I must confess to not having yet arrived at sufficiently intensive observations to discern it.

Dr. Becker especially advises that the attention of the observer be closely directed to the light streak on the arteries, which will be found to increase in breadth, and at the same time the broader streaks at either side widen at each beat of the heart. He also points out that the widening of a curve and the elongation of an artery can be best seen in the periphery of the retina, and that the pulsation can often be best made out where a vessel gives off one or more branches at an abrupt angle.

From my own observations I have found spontaneous visible pulsation in the retinal arteries and veins in a large proportion of cases of aortic regurgitation. It is especially marked when the ventricle is hypertrophied. Secondary dilatation of the mitral orifice does not interfere with its occurrence as long as the power of the ventricle is maintained; and the phenomenon is generally most marked when the pulse characteristic of aortic regurgitation is most developed.

The pulsation is most obvious in the veins, but its occurrence in them is of little importance unless there is also arterial pulsation. Pulsation of the central veins just at the point of emergence is common in healthy eyes, and under various morbid conditions. The arterial pulsation is variable in extent and range. It is sometimes limited to a few vessels of one eye, or, at least, is more readily detected in some than in others. Sometimes it is visible in nearly all the arterial trunks and many of the smaller branches. It is often most marked, and occasionally confined to the limits of the disc; but more usually extends for a considerable way along the retina, for a distance equal to two or three diameters of the disc. It is generally well seen where a vessel makes a more or less sudden curve, the amplitude of which may be observed in increase at each beat of the heart. Sometimes a vessel may be seen to elongate most distinctly, and when the pulsation is present in a very small vessel, it may collapse and disappear from sight during the diastole, and reappear at each systole.

The explanation of the phenomenon is obvious. We here have an opportunity of seeing—as, by palpation at the wrist, we have of feeling—the sudden forcible systole and the sudden collapsing of the pulse, due to the want of arterial tension from the insufficiency of the aortic valves. Considerable practice and much patience are required to to detect its occurrence, and in most cases the employment of the erect image is essential.

The reader is reminded that spontaneous pulsation some-

times occurs in healthy eyes without any vascular derangement ; and that pulsation of the veins and arteries is a well-recognised symptom of glaucoma, and may be produced in healthy eyes by increasing the intraocular pressure by slightly compressing the globe. In these cases the pulsation is limited by the margin of the disc, and is explained by the altered resistance which the vessels encounter at this point.—(Jacobi, *Centralblatt*, 1875, xix.)

I will now briefly record the cases the subject of these remarks, all of which have been under my care at the London Hospital.

Case 1.—W. S., aged forty-five, admitted October 26, 1874. Had followed various occupations, some of them laborious. Had been a free drinker. Never had a rheumatic fever. Suffered from palpitation on and off for twenty years ; it had been worse and accompanied by dyspnœa during the last eight months. A pallid man, with slightly puffy face ; considerable dyspnœa. Apex-beat in fifth interspace, an inch and a half to the left of nipple ; diffused. Cardiac dulness bounded by mid-sternum, fourth rib, and a line an inch and a half to the left of nipple. A loud to-and-fro murmur, heard loudest at mid-sternum, but conducted freely in all directions. Radial arteries very visible and tortuous. Pulsation in both arteries and veins of retina very distinct, and extending for some distance beyond the margin of the disc. The patient improved for a time, and was sent to a convalescent home. He soon relapsed, however, and was re-admitted. He died on February 5.

Autopsy, *same day*.—Acute endocarditis. The aortic valves were covered with vegetations, and perforated in several places. Left ventricle hypertrophied and dilated.

Case 2.—A. B., aged fifty, admitted December 17, 1874. Never had rheumatic fever. Was, according to her statement, well until a month before admission, when she was attacked robbed, her mouth being filled with mud to prevent her cries. A wasted woman, with silver-white hair (since girlhood), anæmic ; skin fairly elastic. Apex-beat

outside nipple line, somewhat heaving. Cardiac dulness from a finger's breadth to right of sternum up to nipple line. Strong pulsation at episternal notch and over right sterno-clavicular articulation, and equally in both carotid arteries. No tumour or dulness at base of chest. A loud systolic murmur at the head of sternum, and a diastolic murmur conducted well downwards. Pulsation of the two radial arteries sudden, forcible, and collapsing; equal on the two sides. Pupils equal; larynx healthy; no dysphagia or dyspnœa. Visible arterial and venous pulsation extending for some distance over the retina. Patient improved slightly; now attending as an out-potient.

Case 3.—F. F., aged twenty, barman, admitted November 20, 1874. States he had rheumatic fever when seven years old, which lasted three weeks; since then has never been well. Fifteen months ago had another attack, by which he was laid up six weeks. Has had cough six months; dyspnœa one month, more urgent the last fourteen days; very anæmic; breathless. Heart's impulse most distinct two and a half inches below and half an inch to the left of nipple, heaving, and accompanied by a thrill. Cardiac dulness much increased. A blowing murmur with the systole at the apex, conducted into the axilla; and a sound which precedes the impulse, but appears to be exocardial. At the base of the chest a systolic and diastolic murmur, conducted for some distance, especially the latter downwards. Pulse at wrist very characteristic of aortic regurgitation; similar pulse in carotid and posterior tibial arteries. The pulsation in the retinal arteries and veins was extremely marked in this case, and extended for a considerable distance from the margin of the disc. The lad is now attending as an out-patient.

Case 4.—F. P., aged thirteen, admitted November 11, 1874. Had rheumatie fever when four and a half years old, which kept him in bed for six or seven weeks. He came to the hospital more for a pain in the head and discharge from the ear than for his cardiac condition. Impulse

in fifth interspace, immediately below nipple, stronger and more diffused than natural. A systolic murmur at apex conducted into axilla, a double murmur at the base, the diastolic very loud and freely conducted downwards. Pulse at wrist characteristic of aortic iusufficiency. Visibie pulsation of both arteries and veins over a considerable area of the retina. Now attending as an out-patient.

Case 5 G. H., aged fifty-one, stoker, admitted March 15, 1875. Had "rheumatism" when a child, and "rheumatics" on and off since. For two years occasional dyspnœa —used to find going up the ladder tried his breath—and had great heaviness at the chest; cough fourteen months; swelling of legs three weeks; vomiting and sweating a few days. Cardiac impulse in fifth interspace, a quarter of an inch to the left of nipple, somewhat heaving. Dulness bounded by mid-sternum, upper border of fourth rib, and a quarter of au inch to left of nipple. A systolic murmur at apex conducted into axilla, and a short systolic and a loud and prolonged diastolic murmur at the right margin of the upper part of the sternum. Very visible pulsation in the carotid, temporal, and facial arteries; the pulse can be seen to travel down from the axilla to the radial arteries at the wrist, which are very tortuous. The pulse is, in an extreme degree, that characteristic of aortic regurgitation. There is spontaneous visible pulsation in the retinal vessels of the left eye, for a short distance beyond the margin of the disc. In the right eye the veins can be seen to pulsate, but not the arteries. Still in the hospital.

Case 6.—G. R., aged twenty-six, labourer, admitted March 9, 1875. Stated to have been well until three months ago, when he caught cold. Shortness of breath two months. A cough came on, which has continued ever since. Three weeks before admission the face and then the legs began to swell. Has had no pain in chest. Has been a very free drinker. Always had very good health previously. Never had rheumatic fever. Anasarcous; extremely anæmic; a few purpuric spots on arms and legs.

No affection of gums, Very breathless. Blood, albumen, and casts in urine, Cardiac impulse in fifth interspace, immediately below nipple. Dulness extends from mid-sternum along third interspace to nipple line. On the evening of admission a systolic murmur was heard at the apex, conducted upwards and into the axilla, and a diastolic murmur heard very distinctly at the third left interspace. When I saw the patient on March 12 the heart-sounds were so obscured by rales that I could only make out that the second sound was not natural. The pulse at the wrist was that characteristic of aortic regurgitation, and the artery was very visible at the bend of the elbow. On making an opthalmoscopic examination, at first sight only venous pulsation could be detected, but on a more prolonged and careful examination most distinct pulsation could be seen in a small artery of the left eye. most markedly on the disc, but extending for some distance beyond its margin. In the opposite eye the pulsation was less distinct. The patient died March 22.

Autopsy, same day.—Acute endocarditis, especially affecting the aortic valves, which were perforated in several places. Mitral valves affected, but less severely. Left ventricle hypertrophied. Large mottled kidney. Embolism in spleen.

Case 7.—G. G., aged thirty four, railway porter, admitted March 13, 1875. Had rheumatic fever eleven years ago, and has been subject to rheumatism on and off since. Cough and dyspnœa one month; œdema of legs three weeks. A pale, spare man, with œdema of legs and scrotum. Apex-beat two and a half inches below and an inch to the left of nipple; diffused and slapping. Cardiac dulness bounded by right margin of sternum, upper border of fourth rib, and a line an inch and a half to the left of nipple. A loud hsrsh systolic murmur at apex conducted well into axilla; a very loud systolic murmur of different character, at the junction of second right rib with sternum; and a diastolic murmur at the same spot, which increases in in-

tensity as the middle of the sternum is approached. Carotid and radial pulses very visible, and have markedly the aortic-regurgitation quality. Retinal arteries and veins readily seen to pulsate for a distance equal to two diameters of the disc. Patient still in hospital.

Case 8—A. R., aged twenty-two, domestic servant. admitted March 10, 1875. Has not been quite well for three or four years; had vague pains in back, side, and chest. Had rheumatic fever twelve months ago, which laid her up for three months. Since then has had shortness of breath, increased on exertion; has had pains in chest; has sweated, and has lost a good deal of flesh. Very anæmic, with bright eye and burning skin; fluctuating temperature; no rigors. Cardiac impulse in fifth and sixth interspaces more than an inch to the left of nipple, heaving. Dulness bounded by left margin of sternum, lower border of fourth rib, and a line an inch to the left of nipple. A very loud systolic murmur heard all over the front of chest, but loudest at the upper and right margin of sternum; and a diastolic very loud and prolonged. Pulsation very visible in carotid arteries, but not elsewhere; pulse at wrist very abrupt and collapsing. There is distinct visible pulsation in the retinal arteries and veins extending for some distance over the retina. Patient still in hospital.—*Medical Times and Gazette.*

MIDWIFERY.

Hubert on Antenatal Baptism.

In the *Cours d'Accouchments*, a recent work on obstetrics, by Dr. L. J. Hubert, Obstetric Professor in the Catholic University of Louvain, especially dedicated to the young gentlemen who come to that University to receive their medical education, the author finishes by a special chapter on the subject of antenatal baptism of infants.

When an infant is not in immediate danger of death, it

is at the church and by a priest it should be baptised; but when its life is imperilled, baptism may be conferred everywhere and by everybody (ecclesiastic or laic, man or woman, believer or infidel), and it is valid, provided it is administered with the intention, the material, and with the formula required.

Who, in case of peril, should administer baptism?

If the child be born, and a priest be present, he should always perform the rite. The father or mother may perform it only in the absence of any other qualified person. If the infant be born, and there be a man present capable of performing it, he should do it in preference to any woman, or even a midwife. But if the fœtus be not born, baptism *in utero* should be administered, either by the obstetrician or midwife in attendance.

The general purpose or intention to do what the Church does is sufficient.

The material is water, pure water from spring, river or well, and whether previously blessed or not.

The formula is: I baptise you in the name of the Father, of the Son, and of the Holy Spirit.

This formula should be articulated, and loud enough to be audible to the person himself.

The baptism is absolute or conditional according to circumstances, as we shall proceed to show. The manner varies as to whether the child is born or not.

A. If the child be born, the baptiser should himself pour water on the head of the child at three times, corresponding with the mention of the respective names of the Holy Trinity.

If there be any doubt respecting the life of the new-born, the formula should be modified thus: 'If thou art living, I baptise thee, etc.'

If there exists any doubt of the human nature of the being to be baptized (viz., if a marked monstrosity or rudimentary embryo), it should be added, 'If you are a rational being,

I baptize you,' etc. Abortions should receive the rite in the same manner as the infant at term.

If the ovum should be expelled entire, the baptism should first be done through the membranes saying : 'If you are fit to receive baptism I baptize you,' etc., then having opened the membranes the rite is repeated, adding, 'If thou hast not been baptized.' When the baptism is thus conditional, the conditions mentioned must be distinctly articulated ; it is not sufficient to merely think or will it. Such is the canonical law.

B. Supposing the fœtus is still in whole, or in part unborn, it then becomes necessary to baptise it *in utero*, varying the method according to circumstances.

a. If the head be delivered it may be baptised either absolutely or conditionally, as if the birth were completed, and no subsequent baptism will be required.

b. If an arm or a foot present, these parts should be baptized, and the danger persisting, the chest and the head should be baptised, with the formula : 'If thou hast not been baptized,' etc,

c. But if the fœtus be still enclosed in the uterus, the baptism should be performed by carrying the fingers or a piece of lint, or sponge, or using a syphon or syringe, and with the formula as before stated, and modified according to the circumstances. After birth, it may be baptised, if alive.—*London Medical Record.*

Thomas on the Treatment of Extra-Uterine Fœtation by Operation.

On February 7th last, Dr. Thomas of New York, operated successfully in a case of extra-uterine fœtation. He first made an opening into the sac through the vaginal wall, using the galvano-cautery in order to avoid hæmorrhage. Then seizing the feet, he brought the body of the fœtus through the aperture, using a small pair of forceps to extract the head. Part of the placenta came away readily ; but in

the attempt to get the remaining portion, such profuse hæmorrhage came on that he was obliged to inject a solution of persulphate of iron into the sac. Afterwards packing it with cotton-wool. With the exception of some slight symtoms of septicæmia, which soon disappeared under the persistent use of an injecton of carbolized water, the patient's recovery was without a drawback. This was the seventh case of extra-uterine pregnancy which Dr. Thomas had seen ; all the others had proved fatal except one, in which the fœtus was passed by the rectum. In making the diagnosis of extra-uterine pregnancy, Dr. Thomas lays great stress upon the spasmodic attacks of agonizing pain, which show that the dillated Fallopian tube has begun to contract upon its contents. This is Nature's warning ; and, unless prompt interference be attempted, rupture of the cyst and fatal collapse are almost certain to follow. The case is reported in full in the *American Medical Weekly*.

MATERIA MEDICA AND CHEMISTRY.

Will and Charteris on Chloral as an antidote to Strychnia.
By J. W. Langmore.

The *British Medical Journal* for January 23rd contained a report by Dr. Hughes Bennett, on behalf of the committee appointed by the British Medical Association to investigate the antagonism of medicines, in which it was shown that in the lower animals chloral acts as an antidote to poisonous doses of strychnia. Dr. Ogilvie Will, of Aberdeen, records, in the *Edinburgh Medical Journal* for April, an opportunity which he lately had of demonstrating that this fact is true also of the human subject.

A druggist's apprentice, aged eighteen, swallowed with suicidal intent, a quantity of pure strychnia. The lad thought he had taken five or six grains—' certainly not less than four '—but the exact amount could not be ascertained as he had emptied it out of a bottle at haphazard ; but from

the rapidity with which the symptoms appeared—only a few minutes after swallowing the poison—and, from the severity, it was evident that the dose must have been a large one.

Medical assistance was quickly obtained; and when Dr. Will saw the patient, an emetic had been given and other attempts made to induce vomiting, but without success; violent attacks of convulsions had already commenced, recurring at intervals of about five minutes; often several fits would follow in succession with only a minute or two between each. Dr. Will at once sent for some chloral; but whilst this was being procured the fits rapidly increased in severity and in duration, and when it arrived the patient appeared actually moribund—as if he could not live many minutes. Thirty grains of chloral were at once administered by the mouth, and 'in a few minutes the good effects began to manifest themselves—the intervals between the spasms became longer and the spasms themselves lessened in severity.' Another thirty grains were then injected under the skin, and almost immediately afterwards a further change for the better was observed. Later in the afternoon, however—the poison having been taken a little before 2 p.m.—the fits again began to increase gradually in frequency and intensity; accordingly at 5 p.m., thirty grains of chloral were again given by the mouth, and at 6.30 fifteen grains were injected hypodermically. After this the fits subsided; occasional twitchings continued for a few hours: these ceased during the night, and next day the patient was convalescent.

Dr. Charteris, of Glasgow, reports a very similar case in the *Lancet* for April 10. In this instance the patient, a very strong healthy man, aged thirty-nine, deliberately swallowed the contents of two sixpenny packets of 'Gibson's Vermin-Killer' mixed with whisky and ginger-beer, each packet containing fully two grains of strychnia. The poison was taken at about 11.30 A.M., soon after a very substantial meal of ham and eggs, etc., and the symptoms came on slowly and gradually. It was not till 3.30 P.M. that

he was taken to the Royal Infirmary; violent attacks of convulsions were then occurring about every ten minutes. The stomach-pump was used but the fits continued to increase in severity and frequency until 4.50, when ten grains of chloral were given, and the dose was cautiously repeated at intervals of about twenty minutes. There was little change until forty grains had been given, but then the improvement was rapid and marked; the spasms subsided into mere muscular twitches, and the patient became calmer. The chloral was now given at longer intervals; about 3 A.M. the spasms ceased altogether, and the patient complained only of aching and soreness in the muscles. He recovered completely in three or four days.—*London Medical Record.*

Pavesi on the External Applications of Hydrate of Chloral.

Dr. Carlo Pavesi, in the *Annali de Chimica (Milano)* for August, 1874, remarks that chloral was discovered in Germany by Liebig; its mode of preparation has been perfected by Dumas, Roussin, and Städeler, in France, and that it was first used as an hypnotic by Liebreich, at Berlin. It is, however, in Italy that its various antiseptic antifermentative, antiputrescent, and coagulative qualities were first discovered. It is likewise in Italy that it received its first successful applications at the hands of Pavesi, Ciattiglia, Merini, and Porta. At a later period, experimentalists of all countries have borne witness to its good effects both in medicine and in surgery, and even in veterinary surgery. In Italy Signor Amici used it to preserve different kinds of vegetables, potatoes and ergot of rye, and also to destroy the itch-acarus. Prato Giurkeo used it to preserve and disinfect leeches; and many others have utilised its different properties.

Dr. Pavesi states that by continuing the researches and experiences undertaken on this head in Italy, he has kept butter for eighteen months in an atmosphere charged with

chloral. With the exception of a slight odour, which, however, is not disagreeable, and disappears if the butter be washed in fresh water, it was in a perfectly sound and sweet condition. Meat and fish of all kinds, preserved for three years, lost all odour and flavour of chloral on being macerated in fresh water. After this maceration, the substance which had been submitted to these experiments regained their freshness and natural colour, and furnished products which had all the qualities requisite for good alimentation. The fibrine and the albumen were both in a perfectly satisfactory state. Dr. Cogniard, in a recent thesis on the external applications of hydrate of chloral, has made a summary of the numerous works written on this question, and does full justice to the part the Italian *savans* have had in discovering the peculiar qualities of chloral already specified.—*London Medical Record.*

Dr. Weir Mitchell on Nitrite of Amyl in Epilepsy.

The *Philadelphia Medical Times* for March 6 contains a paper by Dr. Weir Mitchell, on the use of nitrite of amyl in epilepsy, and in various other forms of spasm. He states that he has made extensive trials of this remedy during the last few years, and in April, 1872, published cases illustrating its power of arresting epileptic attacks, thus anticipating Dr. Crichton Browne's able essay on the same subject, which was published in the *West Riding Asylum Reports* for 1873. Dr. Mitchell does not think that the nitrite is capable of diminishing the frequency of the fits, but he has never known it fail to arrest an attack actually threatened when there was time to use it. Unfortunately it is only available for use by the patient in those somewhat rare cases in which the fit is preceded by a distinct aura. He directs such patients always to carry with them a phial containing a few drops of the remedy, and to inhale it freely on the first occurrence of the sensation ; but in other cases, those who are familiar with the premonitory

symptoms can frequently check fits when the patient himself cannot. Dr. Mitchell has used the nitrite with more or less success in various other forms of intermittent spasm, some allied to *petit mal*, and others apparently hysterical in character. He thinks that it may also be occasionally used with advantage as an aid to diagnosis. Thus it is sometimes difficult to distinguish attacks of vertigo due merely to cerebral congestion from those due to *petit mal;* but in the one case inhalation of the nitrite will aggravate, or even produce the attacks, in the other it will give relief. In conclusion, Dr. Mitchell says that he has never met with any bad effects from the use of this remedy, though nervous patients occasionally complain of the throbbing and sense of fulness in the head which it causes.—*London Medical Record.*

Action of Iodine.

Free iodine, according to Kammerer (*Virchow's Archiv.*), acts by destroying the parts with which it is brought into contact, and he further considers that the general effect of iodide of potassium is due to the decomposition of the salt in the blood, iodine being set free.

Prof. Binz, of Bonn, believes that iodide of potassium undergoes the following changes when taken internally. In a healthy stomach, a part is changed by the hydrachloric acid into hydriodic acid ($K\ I + H\ Cl = K\ Cl + H\ I$); another portion is acted on by the chloride of sodium, so that iodide of sodium is formed; and if the dose be large enough, a part remains unaltered. All the three combinations quickly pass into the circulation. The hydriodic acid here meets with soda, and forms iodide of sodium; but the alkaline combinations of iodide are again acted on in the tissue by carbonic and other acids, and iodine is set free. This free iodide has the property of combining with certain albuminous bodies; and in this, Binz believes, lies the ex-

planation of the therapeutic action of the preparations of iodine.

Kammerer cannot agree with Binz, as iodine acts upon a watery solution of an alkaline carbonate with a formation of an iodide and an iodate of the alkali.

Beside the free iodine, Kammerer supposes that another body is formed, upon which iodine does not act, probably superoxide of potassium, which easily oxidises organic bodies, by which it is reduced to potash, thus increasing the metamorphosis of tissue. The organic bodies to be oxidised may be miasmatic substances and ferments, or later, fibrin and albuminous bodies.

Buchheim, after stating (*Archiv. f. Exper. Path. und Pharm.*) that iodide of potassium is an easily dialysable salt, and as such rapidly eliminated from various mucous membranes, finds in the ozone which is always developed wherever watery evaporation is rapidly going on, and therefore on the skin and mucous membranes, an agent capable of setting free the iodine from its combination, thus giving rise to coryza, &c. The acne-like eruption is due to the iodide eliminated with chloride of sodium in the perspiration.

Buchheim cannot admit the increased destruction of albuminoid material spoken of by Kammerer on either chemical or clinical grounds. A destruction of miasmatic substances and ferments is not among the observed effects of iodide of potassium. Neither the temperature nor the excretion of urea is increased by its use, as they should be according to Kammerer's theory. The emaciation and dyspeptic symptoms observed from the use of tincture of iodine and of Lugol's solution are not neeessary consequences even of the long-continued use of iodide of potassium.

Buchheim suggests that the free iodine acting upon the walls of the smaller blood-vessels and capillaries may so irritate them as to cause their contraction, and thus a diminished blood supply to certain very vascular organs, as the thyroid gland and the spleen, which show especial susceptibility to the action of this drug. With small doses this action is felt only upon organs having a specially favourable organisation for it, as in those just mentioned, while if the dose is larger the action is a more general one.—*The Doctor.*

CANADA

Medical and Surgical Journal.

MONTREAL, JUNE, 1875.

BURIAL OR CREMATION, WHICH?

The subject of Cremation is agitating the public mind at present, and is without question, the best means of disposing of human remains. What can be more purifying than fire; and viewed as a sanitary measure, destruction of all decomposing animal and vegetable material by fire, is far preferable to covering it up with earth. The object in entombment, is simply to bury the dead out of our sight, so that it may not be an offence to the living. To contemplate the gradual destruction of any body by decomposition, is most revolting; the gradual changes which occur during the process of decay, is a subject which is not sufficiently dwelt upon, and if it were, there are few of us living who would not consider it far more desirable to undergo the rapid destruction of our tissues by fire, than, permit them to be submitted to the more gradual, but equally certain disintegration which occurs in the grave. There is to our mind a feeling akin to horror at the thought of being placed in a deal box, or even in a metal casket, and buried with six feet of earth above our heads. We suppose it would matter very little to us how our remains were disposed of; nevertheless, personally, we should prefer the aid of a Sieman's furnace to reduce to its elements, in the space of half an hour, the tissues of which our body is made up. There are many arguments which can be advanced in favor of Cremation, not the least of which is the possible injury decomposing material can do to the living.

These are days in which utilitarian ideas are becoming

more general. Could there be less superstition mixed up with those sentiments, greater good would result to mankind in various ways. For instance, there is a very general feeling of respect for the dead, but this respect is carried just so far as is considered advantageous. It hardly survives a generation. We confess to a certain amount of sentiment as regards the remains of those we knew in life, loved and respected, and when we see their last resting place torn up and desecrated, we cannot but feel a certain amount of painful regret, that their bodies had not been submitted to the devouring element and their ashes scattered to the winds of heaven. There is a large amount of deception practiced in the present day in the treatment of the bodies of the dead. But that deception, we suppose, has not arrisen in this 19th century. The Church leads its votaries to believe in the essential necessity of what is termed Christian burial. We will not speak of the pomp and circumstance, the ringing of bells, etc., etc., which is considered genteel, but is in verity a tax on the living. It is a business, and a profitable one. What essential good is to be derived by this treatment of our dead? No earthly good to the survivors except, perhaps, in being looked upon by their fellow-mortals as well-to-do in this world because they paid for a fine funeral. We have heard a story of a Scotch Highland Chief whose funeral beggared his family. We know of a case in our own city where the head of a family was struck down suddenly, and where the survivors had to borrow some twenty-five or thirty dollars to bury their relative—half a cord of wood at eight dollars a cord would have reduced his remains to ashes; and if a Sieman's furnace had been at hand, a bushel or two of gas coke would have been sufficient. Viewed, therefore, from an economic point, and from a sanitary point, Cremation has everything in its favor.

Then, again, with regard to burial of the dead in consecrated ground, the thing is a fraud. The ground is consecrated to preserve the superstitious belief of

the faithful. Just so long as it is quite convenient to the circumstances of the day will consecration last; as soon as the ground in question becomes of value by the encroachments of the living, will the consecration be removed, the resting places of the dead rooted up, and the ground itself sold for the purposes of the living. If monuments have been placed by a former generation to mark the hallowed spot, these must in turn give place, there is no practical use in retaining them, even though they did cost, perhaps, the price of many a meal, which has been abstained from by the destitute, rather than that so sacred a duty as raising a monument to the memory of the departed should be omitted. These thoughts have been suggested by the very practicel manner in which the two burial grounds in this city have been disposed of.

In the case of the old English burial ground, the property is situated in the heart of a populous district. It has been for over ninety years the burial place of protestant citizens of this City. In the year 1856, a By-Law was passed forbidding any further intramural interments and that ground was closed. In course of time, a Church of England Congregation, sought to secure the ground for the purpose of erecting thereon a free seat church, but so many conflicting elements existed in this connection, that the proposal was found to be impracticable. Subsequently an Act of Parliament was obtained, authorizing the sale of this property to the City, and a certain amount of money we believe was paid by the City to the Mount-Royal Cemetary Co., ostensibly for the purpose of removing all the bodies of the dead lying in that ground, and placing them in the Mount-Royal Cemetary. This has not been done, the required time has elapsed, and the City of Montreal has entered upon occupancy of the ground in question, all the monuments are being rooted up, destroyed and reduced to fragments, the ground is to be levelled and converted into a garden, and in due course of time, we will have fountains playing and other modern improvements, which certainly

will be more agreeable to the eye and more healthful to the residents in the vicinity. Now we do not object to all this, but we simply say let us be consistent; do not on the one side condemn the disposal of the remains of the dead by fire as heathenish and demoralizing, and on the other treat the remains of the dead of a generation or two back, in a way in which heathens would have considered as demoralizing and contrary to law and order. Who now can believe in the sacredness of any parcel of land? Who will believe that there is any necessity for the hollow mockery of parading our dead through the streets, taking the remains to a church, and, if we can afford it, having a requiem sung, and from thence taking them to a consecrated burial ground? Who will now raise a monument to preserve the memory of any worthy or unworthy son of Adam? Better by far reduce his body to ashes by aid of a Sieman's furnace. But supposing the destruction of bodies by fire were to become general, it would not prevent the performance of any religious ceremony, as we suppose society is not prepared to submit to any sudden alteration in this respect.

THE CITY SMALL POX HOSPITAL.

We observe that the city authorities are becoming tired of keeping up the small pox hospital, and are returning to the old cry of establishing two separate institutions, one under the management of the Sisters of the Hotel Dieu, to constitute a Roman Catholic small pox hospital; the other to be under the charge of the Corporation of the Montreal General Hospital, and to constitute a Protestant establishment. We are surprised that this idea is again mooted, as public opinion was somewhat pronounced against such a measure. We have not seen any statement of the actual cost to the city of keeping up the small pox establishment at the Hall house, but suppose this action of the Corporation proceeds from the expensive

nature of that undertaking. We have heard that the Sisters of the Hotel Dieu demand an extra subsidy from the city for having treated so many cases of small pox, at so much a head per day. We believe that the Committee of the Montreal General Hospital refused to accept any payment from the city for cases of small pox treated in their wards, alleging that inasmuch as they already receive a grant of money from the Government they would not be doing quite the square thing to accept a subsidy from the city chest. This is perfectly correct in principle, but the Hotel Dieu Hospital is precisely in the same position; they, too, receive a grant from Government to aid in carrying on their charity.

It is desirable that a hospital, separate and distinct and not denominational, should be established. To carry out this idea it would be well to appoint a special committee, and although nothing like parsimony should be permitted, nevertheless, economy should guide its management. The money to be expended is public money, and will be advantageously spent if in the end it leads to the stamping out the disease small pox. The fact of the existence of small pox in an epidemic form has materially injured the trade of this city. The disease has declined in consequence of the more favorable weather for the ventilation and cleansing of our houses; but it still exists, and therefore the watchfulness and care of the City Health Department should not relax. In fact to be of further use redoubled energy should be shown; certainly to omit further precaution would be to give the disease a chance of a fresh outbreak, which would be exceedingly damaging to the best interests of the city.

RESULTS OF VACCINATION IN BOSTON, Mass.

"Local Varieties.—There was not a case of small pox in Boston for the year ending May 1st, which is the first time the remark could have been made with truth for twenty years."

We extract the above from the Boston *Herald* of Monday, 17th May, 1875, and the gentleman who kindly sent it to

us adds : "*Boston a été vaccinée il y a deux ans ; quel argument pour le Dr. Coderre.*" Truly it is an argument which is unanswersble, but one which has been oft repeated. Casper, of Berlin, gives the returns of death by small pox in that city for three decennial periods. From 1792 to 1801 there perished in Berlin, from small pox, 4,453 persons. In the year 1800 vaccination was introduced and practiced extensively ; from 1802 to 1811 the death rate from small pox was reduced to 2,955 ; and in the next decennial period the deaths from small pox were further reduced to 500 souls. Take the instance of Sweden: from the official government returns we learn that in the year 1799, 11,500 persons perished by small-pox ; in 1800 there were 12,800 deaths from that malady. In the year 1800 vaccination was introduced into Sweden and rendered compulsory ; in the year 1801, the deaths from small-pox were reduced to 6000, and in 1822 there were only 11 cases of death from small pox recorded as occurring throughout Sweden. We have always considered it a fearful mistake on the part of our Legislators the neglect to enforce a rigid compulsory system of vaccination throughout the length and breadth of this land. We do not know whose business it is to legislate on this matter for under the present cumbrous system we have been informed that all questions of public hygiene are regarded as subjects for municipal government, and that any amendment to the vaccination act, which was passed by the parliament of United Canada in the year 1861, would have to be brought up for consideration before the Local Legislatures of each province. The act referred to, strange to say, renders vaccination compulsory, or rather gives to the councils of certain cities the authority of enforcing vaccination, under a penalty of five dollars, for neglect on the part of parents, or persons having the care and nurture of children, to take such child within three months after birth to the public vaccinator, said vaccinator to be appointed by the council of the said city ; nothing whatever is said about country municipalities, and the natural inference is that they

were either without children, or that their offspring, if they had any, were considered by the Legislative Solons of 1861, to be quite incapable of contracting the disease smallpox. In fact for the past few years we have adopted the very wise *laisser faire* system; "we have sown the wind and are now reaping the whirlwind," inasmuch as there is hardly a locality throughout the country, where smallpox has not entered and is doing its work of destruction.

CHANGES IN THE FACULTY OF MEDICINE, McGILL UNIVERSITY.

At the termination of the last session of the Medical Faculty of McGill University, Dr. Campbell, the Dean of the Faculty and Professor of Surgery, announced his intention to resign his Chair as a teacher in the school, but said he would still remain in connection with the Faculty and retain the Deanship. This action necessitated a number of changes, and the following is a list of the appointments recently made by the Governors of the University:

Emeritus Professor of Surgery, GEORGE W. CAMPBELL, A.M., M.D., I.L.D., Dean of the Medical Faculty.

Theory and Practice of Surgery, G. E. FENWICK, M.D.

Clinical Surgery, THOMAS GEORGE RODDICK, M.D.

Medical Jurisprudence, WILLIAM GARDINER, M.D.

Hygiene, ROBERT T. GODFERY, A.M., M.D.

Dr. Campbell has been connected with McGill University and has lectured on surgery, without interruption, for forty years. His course was most instructive and eminently practical. We trust that the severing of his connection with the teaching body of this school will not in any way prove detrimental to the interests of the University. At a subsequent meeting of the Faculty of Medicine Dr. Frank Shepherd was named by them Demonstrator of Anatomy, rendered vacant by the appointment of Dr. Roddick to the Professorship of Clinical Surgery.

MONTREAL GENERAL HOSPITAL.

The office of House Surgeon to this institution, rendered vacant by the resignation of C. H. Chipman, M. D., was filled at the last quarterly meeting of the Governors of the Hospital, by the appointment of the Assistant House Surgeon, J. C. Cameron, M. D. The post vacated by Dr. Cameron was filled by the appointment thereto of J. D. Cline, B.A., M.D., who had served during the last twelve months as apothecary to the hospital; and the vacancy created by the advancement of Dr. Cline, was filled by the appointment of W. H. Burland, Esq. Mr. Burland has fulfilled all the requirements, and passed all the examinations necessary to entitle him to receive the degree of M.D., C.M., from the McGill University, but not being of the full age of twenty-one years, he only awaits his majority before he can graduate. We congratulate these gentlemen on their several appointments.

THE SANITARY ASSOCIATION OF MONTREAL.

We observe that a number of prominent citizens of Montreal have formed themselves into an association with the above title, their professed object being to improve, if possible, the sanitary condition of our city. The association is not in any way antogonistic to the legally constituted health department, but is desirous of seconding the efforts of the health department in every way in its power. Great good may result from the formation of this association. There are many subjects which will legitimately engage its attention, but we believe its mission lies in arousing public and individual attention to the urgency of adopting sanitary measures; in other words, of educating the masses in subjects with which they should be familiar, leaving the details of enforcing sanitary regulations to the police. We will refer again to this subject.

We have to acknowledge the receipt of communications from Dr. Duncan, Cowansville, Dr. Wood, Faribault, and Dr. Shepherd, Vienna, Austria. They will appear in our next.

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A

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EDITED BY

GEORGE E. FENWICK, M.D.

Professor of Surgery, McGill University; one of the Governors of the College of Physicians and Surgeons; Surgeon to the Montreal General Hospital.

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ORIGINAL COMMUNICATIONS.

Subcutaneous Injection of Chloroform in the Treatment of Facial Neuralgia. By Geo. Wood, M.D., C.M.

I wish to lay before the readers of your useful journal a new treatment for neuralgia. I have only seen it tried in two cases, and in both it has been entirely successful. I do not claim the discovery of this method of treatment, nor can I give my authority. I saw it recommended in some American Medical Journal and availed myself of it in the treatment of one of the severest and most obstinate cases of facial neuralgia, that it was ever my misfortune to meet with.

D. C. H. Aged about fifty, dark hair, eyes and complexion, very spare, weight 125 lbs, has suffered from facial neuralgia of left side of the face since 1854, has undergone all systems of treatment with little or no relief. In 1872 had the lower jaw trephined and a section of the nerve removed, this gave him relief for several months, but eventually the neuralgia returned harder, if possible, than ever. He first came under my care in August 1873. I gave him different iron tonics, bark, hypodermic injections of morphia, croton chloral hydrate, and also the different and various neuralgic pills that I ever heard of, with but temporary success.

In August of 1874, I injected 15 minims of chloroform underneath the mucous membrane of the lower jaw, as near the exit of the mental branch of the 5th pair as I could. It gave him entire relief in an hour, but caused partial paralysis of the muscles of the left cheek. In a week I repeated the injection and put him upon drachm doses

of the Elix. of Guarana three times a day. In September and December, and also in April, he had a very slight return of the pain, each recurrence being less severe. At each of these times I repeated the chloroform, and he now seems to be entirely well.

My partner, Dr. Rose, had a lady patient, unmarried, æt about 45, who had been a terrible sufferer from the same disease for seventeen years, had consulted the most eminent men in this and foreign countries, and had tried all the prescriptions recommended. The only thing that gave her any relief was the hypodermic injection of morphia. She was obliged to use them, sometimes several times a day. Her mind and morals were very much disordered. Dr. Rose tried the hypodermic use of Chloroform, and she is now entirely well. Her mind is as clear as of yore, and she seems and acts like a new being. The injection of chloroform is extremely painful unless preceded by an injection of ten or fifteen minims of Magendie's sol. of morphia. If this suggestion can give relief to others suffering from this most painful disease I shall be most happy. I intend using the chloroform in the first case of Sciatica that comes into my hands.

Faribault, Minn., June, 1875.

Case of Invagination or Intussusceptio, recovery under the care of GEORGE C. DUNCAN M. D., C. M.

On the evening of May 8th, I was called to see B. McP. aged 17 months. On entering the room I found the patient in her father's arms, very cross and restless, face flushed, pulse rapid, respiration hurried and stertorous. The nurse informed me that the child had been very restless for several days and would start in her sleep, and had eaten nothing but milk for which it had a great desire, taking large quantities during the day. She also stated that the child had vomited several times to-day, that her

bowels had been regular until four days previous, when she had a slight diarrhœa for one day, and had not had any motion for two days, until this morning, when she passed a few hard masses of fœcal matter. The abdomen was moderately tympanitic, but on account of the child's crying I could elicit nothing by percussion. Thinking that it might be worms, I ordered

R. Santonin, grs. vi.
ft. pulv iii.

One to be taken every 12 hours.

Also ℥ss of ol Ricini to be given immediately.

May 9th, I was called early this morning, the messenger stating that the child was very bad. Upon my arrival I found that the bowels had not been moved. The abdomen more tympanitic than last evening, and the symptoms then found much increased. I immediately proceeded to give the child an injection of soap and water but before doing so on introducing my finger into the rectum about 1½ inches it came in contact with a firm rounded tumor with a depression in the centre, imparting a sensation to the finger much like the os uteri ; with steady pressure it would recede but immediately return on the withdrawal of the finger. I proceeded to administer an enema, but could not get more than a few ounces to enter, but by withdrawing the syringe and forcing the bowel up as far as my finger could carry it and lowering the child's shoulders I succeeded by using firm and steady pressure in injecting about a pint. On withdrawing the syringe I was surprised to find that no fluid escaped, and upon examining I found that there was a large mass of hardened fœces plugging the anus, which by the continued pressure of the fluid above, and the straining of the child forced the rectum so low down, that I could exert pressure through the perineum behind the mass, and much to the astonishment of the child's father, I succeeded in getting out a piece of hardened fœces 2¼ inches in length and 1 inch in diameter, and immediately following it several

small pieces with the enema. On another digital examination the same state existed, but the tumor was much smaller and softer and could be returned quite easily as far as the finger could reach. The child appeared much relieved, and I ordered her to be kept quiet, and allowed nothing to eat or drink, except a little cold water and milk to allay thirst.

(6 P.M.,) Very restless, respiration and pulse increased since this morning. On examining per rectum the tumor was increased, and is harder than when I left it in the morning, I gave another injection and removed with my finger two oval pieces of fœcal matter, about $\frac{3}{4}$ inch in diameter and $\frac{1}{2}$ inch in thickness.

May 10th. Did not sleep well last night, and is very cross and restless, and appears weak, abdomen still some. what tympanitic. Gave another injection, but did not remove any fœcal matter. I then passed a small flexible bougie which met with a slight obstruction about 4 inches from the anus but with gentle pressure it passed easily some 6 or 8 inches farther, when it was stopped, and following its withdrawal there were several ounces of thin fœcal matter, which was suddenly stopped, and followed by violent straining ; I then withdrew with my finger two more hardened masses. The parents and friends becoming alarmed about the child starving, I ordered chicken broth and small quantities ℥ss. of brandy every three hours.

(6 P.M.,) Much better and wants to walk.

May 11*th.* Had a natural motion of its bowels this morning and seems much better, and asks for something to eat ; ordered beef tea, and to be kept quiet.

May 25*th.* Since last date the child has been doing well and has been walking about as usual appearing quite recovered, her bowels acting quite naturally.

Cowansville, May 20th, 1875.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Reported by J. C. CAMERON, M.D., *House Surgeon, M.G.H.*

In Dr. MacCallum's wards, during the past two months, several cases of interest have been under observation ; from the very careful and complete notes taken by the members of the Clinical Class, the following brief reports have been arranged :

Iodoform as a Local Application.

As considerable attention has been directed of late to the action of Iodoform, and as its results have been described as being but little short of marvellous, Dr. MacCallum determined to try it upon several chronic ulcers which had resisted all the ordinary modes of treatment.

CASE 1.—J. D., admitted with a large unhealthy ulcer, evidently of specific origin, situated about the middle of the thigh on its posterior surface. It was three inches long by two inches broad. The edges were hard, raised, thickened and undermined in places. The discharge was copious and sanio-purulent. Poultices, carbolic wash, red wash, black wash, chloral wash, and nitric acid wash were all tried in turn, without altering much the unpromising appearance of the sore. Iodoform reduced to a very fine powder was dusted over the whole sore, and in thirty-six hours a lapsing of cicatricial tissue had formed around the edges and the sore was reduced about three-fourths its original size. The powder was applied on three occasions afterwards and in three weeks from the first application, the sore was completely healed, the cicatrix being unusually firm and healthy in appearance.

CASE 2.—J. D., a laboring man, 40 years of age, engaged in blasting stone for the Corporation, got his leg severely

injured by a blast in January; a large fragment of rock struck his leg inflicting a contused and lacerated wound in the calf and tearing the flesh from the heel in a fearful manner. The torn edges were brought as closely together as possible, free exit was given to the products of inflammation, and after a great deal of trouble the wound was all healed except a small patch about two inches long by one broad, just in front of the internal malleolus. This resisted every sort of stimulating application, including strapping and blistering. The surface was ash grey in color devoid of granulations, with hard, raised, thickened round edges. After five applications of the Iodoform the sore was reduced to about the size of a bean, and in a few days more it will be quite well.

Case 3.—B. M., æt 43, admitted with ten or twelve small unhealthy sores between the knee and ankle of the right leg. Eighteen years ago, she scratched her leg with a rusty nail, the wound ulcerated, and since that time she has never been quite free from those small painful and irritable-looking sores, for as fast as some would heal, others would break out. With her, too, all sorts of applications had been tried, but without any very marked effects; blisters seemed to answer better than anything else in her case. Iodoform was applied five times and the leg healed up thoroughly.

Case 4.—W. M., æt 23, admitted with two large chancroids. Various stimulating and alterative washes were applied, as black wash, chloral wash, nitric acid wash, &c.; but the progress of the case was slow. Iodoform was applied twice, and the man left hospital almost well.

There are several other cases of the Iodoform treatment under observation, but the notes are not yet completed. Iodoform seemed in the above cases to act as a rapid and powerful alterative. About ten minutes after the powder had been dusted on the sore, the taste of Iodine was quite perceptible in the mouth: slight dryness of the throat was

felt by some, nausea by others; while one complained of a continual sour taste in the mouth and throat, which made her unwilling to drink any milk for fear of souring it. The action of the Iodoform seemed most marked in these cases in which a specific taint existed. The unhealthy ash-grey appearance changed at once and healthy granulations sprang up. When too frequently applied it over stimulated the sore, and had to be discontinued.

Fracture of the Humerus from a Powerful Wrench of the Wrist.

A rather curious case of fracture was admitted in the month of April. J. D., a soldier, about 40 years of age, a fine, powerful, muscular man, was testing his strength with a comrade by "twisting wrists;" for some little time neither party seemed to gain any decided advantage, till at last the patient's opponent suddenly raised his elbow from the table and gave a sharp quick wrench, snapping the patient's humerus about the middle of the shaft. The arm was put up in the ordinary way, and a good recovery was made in four weeks. The suddenness of the wrench and the violence of the muscular effort exerted by the patient to recover from it proved too much for the resisting power of the bone.

Case of Favus.

T. A., a lad of sixteen, a sailor, applied for admission to Hospital with his head almost completely covered with favus crusts. The hair was mostly short, dry and brittle, and matted with the discharges, and altogether the case seemed by no means very promising. The crusts and hairs were carefully examined under the microscope; the achorion was everywhere very plentiful. He was put upon five drops of Fowler's Solution, three times daily; poultices were applied to the head to clear off the crusts, and epilation

decided upon. The case was then entrusted to Mr. N. Smith, to whose perseverance and assiduity the favorable termination of the case is largely due. A small patch of the scalp was cleared every day by carefully pulling out each hair with a fine pair of forceps. A wash of

Hydrarg, Bichlorid. grs vi,
Ammon. Mur. ℥ ss.,
Aquae ad ℥ viij.

was then rubbed carefully into the cleared surface. All the diseased hairs were in this manner gradually removed and the parasiticide applied to the whole scalp. As new hairs grew up, any which had a suspicious appearance were at once pulled out and the wash well rubbed in. After two months of this treatment, carefully and persistently carried out, the patient left hospital without a vestige of disease. The hair was growing well and was quite healthy in appearance.

Correspondence.

VIENNA, May, 1875.

To the Editor of the Canada Medical and Surgical Journal.

DEAR SIR,—Vienna is certainly the place for one to come to who wishes to post himself in medicine, both general and special. The amount of material is enormous, and the teaching first rate. There is scarcely any organ or part of the body that is not made a specialty of here. In fact, as a friend of mine remarked the other day, some man ought to make diseases of the navel a specialty to complete the list. The Medical Department of Vienna University has a world-wide reputation, and justly so, too, while it still has amongst its Professors such men as Billroth, Hebra, Bamberger, Brücke, Carl Braun, Meynert, and many other lesser lights, all of whom teach daily and are listened to by crowds of admiring students and medical men from all

parts of the globe. The private courses, which are given by the docents and assistants, are the ones most patronized by foreigners, on account of their being less crowded. The great drawback to an Englishman or American is his deficient knowledge of the language. Vienna is the last place in the world one would come to study German, on account of the numbers of English-speaking people here; besides, at the courses, five-sixths of the men are foreigners. The Viennese seem to have a great talent for languages; it is rare to find a man who does not at least speak two. One meets people who speak English everywhere, and they, unlike the Anglo-Saxon, if they know a foreign language even very slightly, are not at all bashful about speaking it, and take every opportunity afforded them of conversing in it. The best thing for a man to do, who intends studying in Vienna, is first to go to some small University town in North Germany, where good German is spoken and there are none of his countrymen near; in this way he will learn as much German in three months as he can in six in Vienna. In these small University towns he will be able also to attend medical cliniques, and I have no hesitation in saying that his time will not be wasted. In these small towns he will see more of real German life, and see the typical hard-working, beer-drinking, duel-fighting German student. I went to Marburg, in Hessen, Prussia, for two months, and am now sorry I did not remain longer, or rather go earlier. Marburg is a very old University town, and has had some celebrated men as Professors, who afterwards were appointed to larger Universities. Amongst those there at present are Professors Lieberkühn and Roser,—the former Professor of Anatomy and the latter of Surgery. Lieberkühn is known to every student of Anatomy and Physiology. I have heard him lecture frequently. He makes Anatomy very interesting, and illustrates his lectures beautifully by specimens and drawings; he is very fond of telling funny stories, and is a great favorite with the students. The Marburg students are

typical German ones, and spend four-fifths of their time smoking, drinking beer and fighting duels. The Medical students do not indulge in these pastimes to such an extent as students of Philosophy and Languages, and Theology. Nearly all the Medical students having passed through the Arts Faculty, have lived long enough to see the error of their ways, and really work hard. Almost every other student one sees is disfigured by scars received in duels. These duels are rarely or never fatal, as they fight always with blunt swords and no thrusting is allowed; every part of the body is protected, except the face and top of the head. The eyes are protected by spectacles, and the throat by a stock which reaches to the chin. Whilst in Marburg I must have witnessed fifty duels; in fact they are of daily occurrence. and on Saturdays there are generally seven or eight.

The Hospital in Marburg contains about a hundred beds. It was here I first saw hypodermic injections of carbolic acid, of the strength of one to fifty, used for erysipelas, and with apparently good results. The injections were made in the neighborhood of the eruption. They also injected carbolic acid of the same strength *into* joints for synovitis. The surgeons spoke highly of this treatment, and certainly, as far as I could see, it did no harm. I also saw here the the operation of transfusion performed in a case of scarlet fever. The temperature in the axilla was 106° Fahr.; extremities cold, and pulse not perceptible at the wrist. The blood was injected into the radial artery. The operation was followed by a decided rally, but the patient died twenty-four hours after. Hoping that you will pardon this digression, I shall return to Vienna.

One great advantage of Vienna is the number of special courses continually going on, on diseases of the eye, ear, throat, &c. On the ear, by Professors Gruber and Politzer; on the throat, by Professors Schroetter, Stoerk, Snitzler, &c.; on the eye, by Professors von Jaeger, Arlt, Stillwag, &c. It is extraordinary the number of patients that attend

these cliniques, and at them students have every opportunity of examining the cases. Diseases of the eye can be studied to great advantage, and courses are being continually given on the pathology, diagnosis and therapeutics of the external diseases of the eye. Prof. Jaeger and his assistants give remarkably good practical courses of eye operations and the use of the ophthalmoscope. The courses in Operative Midwifery and Surgery are surpassed nowhere, not even in Paris. Material for these courses never seems to fail, and may be had almost for nothing. In the Operative Surgery courses given by the assistants of Professors Billroth and Dumreicher, one has generally, in a single course, the chance of performing all the operations twice, and some of the minor operations much oftener. The instruction is excellent, and the teacher sees that each one performs the operations carefully. These private courses last as a rule about six weeks, and cost on an average between seven and ten dollars, some more and some less. Students coming to Vienna should endeavor to arrive in October or early in January, as most of the classes at this time are commencing. The opportunities afforded here for studying skin diseases are greater than at any other school in the world. Four or five lectures are given daily, which are illustrated by numerous cases. Prof. Hebra visits his wards every morning at seven, and lectures from eight to nine. He is a very amusing lecturer to listen to, and his remarks on things in general display a large amount of common sense; his manner is rather rough, and at times he makes use of strong language, but his remarks are very original, and he generally tells one something new. A beginner would profit more by first taking a course with some of the other Professors before going to Hebra's clinique, as their manner of teaching is more systematic though not so entertaining as Hebra's. There are no less than five Professors of Skin Diseases connected with the University. Drs. Neumann and Kaposi were made "Extraordinary Professors" at the end of last term. In eczema and psoriasis, tar ointment

(ol. rusci) and green soap (sapo viridis) are used very extensively. There have been some very fine cases of pemphigus lately in the wards, one very severe case of which was treated by water baths. In this case, the man was kept in the bath for four successive days. Scabies, lupus and syph ilides are the most common skin diseases here.

There was a curious case of tattooing exhibited lately at the Skin Clinique. It was that of a Greek sailor who was, with the exception of his face and hands, completely covered with tattoo marks from head to foot. Looking at him from a distance, one would imagine that he had a tight-fitting suit of clothes on. On close examination, the tattooing was seen to consist of a most intricate and beautiful pattern, some of the lines of it being almost microscopic. Curious characters were to be seen on some parts, and on his face and hands (the only parts not completely covered) were birds and beasts. His story was that years ago he was wrecked on an island in the Indian Archipelago. His companions were killed by the natives, with the exception of two, who with himself were subjected to this process of tattooing and dedicated to the gods. His two companions died under the process, but he, being a very strong man, survived. He says the tattooing took months before it was entirely completed. His story, I may say, is to be taken *cum grano salis*.

It is rumored that Prof. Recklinghausen of Strasburg is to succeed Prof. Rokitansky. I believe the position has been offered to several North German Pathologists, but none have accepted it. Prof. Rokitansky, it seems, wants to be succeeded by one of his old pupils.

One meets at the different classes people from every part of the globe: Russians, Swedes, Poles, Turks, Swiss, South Americans, and even Japanese. English and Americans are very numerous; there were at least fifty here last winter. So far I have only seen two female students, and they are both Americans. Foreigners are generally charged for courses twice as much as natives. It is quite common to

see a course advertised thus:—Inländer (natives), 10 fl.; Ausländer (foreigners), 20 fl. Some of the teachers are liberal enough to make no difference, but in these cases the course is generally charged for at so high a rate that 'natives' are virtually excluded. All the University lectures, viz: those given by the professors, are of course the same price for all; but foreigners to be able to attend them have to prove that they have studied medicine and have to enroll themselves as "extraordinary" (ausserordentlich) students, unless the Professor has some special arrangement, which, as in the case of Prof. Hebra, allows them to do otherwise. There is a capital Children's Hospital (St. Ann's) quite near the General Hospital, which is very popular with the foreign medical men studying here. Prof. Wiederhofer has a children's clinique daily, and his course is one of the most crowded. His assistants give very good private courses, limited to ten men, in which numbers of out patients are seen, and the members of the class are daily taken through the wards to look at interesting cases. During the winter session there was a great number of croup cases, many of which were fatal. In ten (10) cases, Tracheotomy was performed, but not one recovered. Rickets seems to be the most common children's disease here, and goes by the name of 'Die englische krankheit, (the English disease.) The favorite treatment of pneumonia is by the wet sheet, as far as I could see the success of this method was not very great. The Children's Hospital is very well built and ventilated. One thing that strikes you on entering the wards is seeing over every bed a plate with the name of the person who gave a sum sufficient to furnish one bed. Instead of wards being given by one person as in England it seems to be the fashion for people to give enough to defray the expenses of one, two or three beds.

The corridors of the hospital are prettily decorated with numerous statues representing the various ways children are carried in different parts of the world. Among them is of course the Indian Squaw with a 'papoose' on her back

and a hatchet in her hand. One is often surprised at the class of people one sees at the cliniques. It is no uncommon thing for a lady to come with a child in a carriage, accompanied by a nurse. Many of the patients without doubt could afford to pay a doctor. The doctors here are miserably paid. Legally, I believe (unless they are professors) they can only collect twenty kreuzers (ten cents) a visit, but one gulden (fifty cents) is the usual fee. In the University there are two Professors of Anatomy, and two sets of Lecture and Dissecting Rooms. Prof. Langer is Hyrtl's successor. Hyrtl resigned his post last year and is now living a few miles out in the country, where he spends most of his time gardening. He has taken his museum with him, and still continues to put up a few of those beautiful microscopic specimens for which he is famed. His museum, I hear, is soon to go to America, having been sold to a college in Philadelphia.

Subjects being so plentiful, dissecting costs nothing. As a rule, they are not injected, unless the student especially requests it. No preservative injection is used, it not being an object, where material is so abundant, to preserve a subject for any length of time. The lectures in anatomy are well worth attending; they are beautifully illustrated by specimens and diagrams. The black-board is used a great deal here in teaching Anatomy. A student who wishes to read anything up specially can always procure as many dried preparations, bones and 'pickled' specimens, as he needs. Connected with the Disecting Room is a place fitted up with apparatus for preparing bones. Any number of bones are always lying loose about the Dissecting Room for the use of students. The Prosectors of Anatomy give private courses on "Practical Anatomy" which are numerously attended by students going up for examination. They dissect out roughly before the class what they intend to demonstrate, and have a fresh subject every day. The amount of material used up is startling to one who has always been accustomed to be careful of it on occount of

its scarcity. Quite near the hospital is a medical college called the "Josephinium," founded in 1784, by Joseph II, for the education of military surgeons. The college contains a magnificent wax anatomical museum, said to be the finest in the world. Some of the models are very beautiful and are the works of celebrated artists. One model alone cost twenty thousand dollars. This museum is open to medical men daily from eleven till one. There has been a great deal of typhus fever here this winter, the patients are put in the wards with ordinary cases of pneumonia, phthisis, &c. Of late, there have been so many cases that they are thinking of building a special hospital for them, a thing which should have been done long ago. Last week a child was born in Prof. Braun's wards, without eyes, the lids were perfect but the eye-balls were completely wanting. Prof. Braun said he knew of but one similar case. During the winter Prof. Braun has shewn his class numbers of interesting cases, among which were two of double uterus. In the first of these cases the diagnosis of fibrous tumour was made and the true nature of the case was not found out till the supposed tumour had been cut into, and about a pound of retained menstrual fluid escaped. The woman died six days afterwards of peritonitis, and at the autopsy it was found that the right horn of the uterus did not communicate with the vagina, but was connected with the right ovary. The right ovary was merely a sac, and both it and the right Fallopian tube were much distended by the retained fluid.

When a case occurs in the midwifery wards requiring operative interference, and the time suits, it is brought into the lecture room and the operation performed before the class. Simpson's forceps are the ones most used here.

When a patient dies in hospital he remains in the bed and in the ward he died in for three hours, then he is taken to the dead-house, placed in a large room in bed, and has his fingers attached to a bell by a string, so that should he make the slightest movement, the bell rings and the atten-

dants are aroused. The room contains about twenty-four beds, and looks exactly like an ordinary hospital ward. It is rather a strange sight to see a ward full of corpses in bed. After having remained here twenty-four hours, a post-mortem is made (in every case). Then, if the patient has friends who can afford to pay for his funeral he is delivered to them, if not, he goes to one of the numerous departments requiring material. There is no case on record in this hospital where a patient has ever come to life after having been placed in this room as dead. It is an old custom (and the law requires that they should observe it), to keep a body with bell attached twenty-four hours after death.

The weather all last winter was very severe, such a continuous low temperature not having been known for years.

There was good skating every day during January and February. Snow storms were of daily occurrence. At present it is quite summer-like, the leaves are all out, and everything looks cheerful. In summer the people live almost entirely out of doors. They always, when fine, take their meals outside under awnings and trees which are in the Gardens connected with every 'Restauration.' The Prater is the fashionable promenade and drive and is full of people every afternoon. The cafés, with the crowds of people sitting out under the trees in front of them drinking coffee, the music of the various military bands, and the gay equipages continually passing, make the place both very lively and causes one to forget the disagreeableness of the past winter. To a man who has had a fair medical education, Vienna is the place to come to. Even if he is but slightly acquainted with the language there are many courses in which he can use his eyes and hands to great advantage. After attending lectures for six weeks or two months, and reading at home with a teacher, he will be able to make out pretty clearly all that is said. The expense of living is about the same as in London. Every advantage is here offered to men who wish to study specialities as the eye, ear and throat. Hoping that I have not intruded too much on your valuable space,

I am Sir, yours &c.,

F. S.

Reviews and Notices of Books.

Croup in its Relations to Tracheotomy. By J. Solis Cohen, M. D. 8vo. pp. 78. Philadelphia: Lindsay & Blakiston, 1874.

This is an essay which was read before the Philadelphia County Medical Society, January 14th, 1874, and ordered to be printed by the Medical Society of the State of Pennsylvania in their transactions for that year. The author states that "it is based upon a careful study of the published records of more than five thousand cases of Tracheotomy in croup, performed in various portions of the world." The labour entailed in such a study has been doubtless considerable, and the result has been a useful essay upon the subject.

The paper is limited to the subject of croup in its relations to tracheotomy, and the casualties incident to the disease, independently of the operation, such as general systemic infection, diphtheritic paralysis, pneumonia, and fibrinous deposits in the cavities of the heart, are not discussed.

Statistics are given, taken from French, German, British and American sources, which show that the results of the operation prior to 1850 were in the main unfavorable, and the much greater success which has attended the operation in the past twenty-five years, the author attributes to the increased care taken in the performance of the operation itself, and in the details of the after treatment. Age appears from an extensive range of statistics to have an important bearing on the result of the operation. It is seldom successful in children under two years of age, or over eight or nine, and very seldom or never successful in the adult. Sex does not appear to have any influence on the mortality.

The mortality in private practice is much less than in that of hospitals, for various reasons.

The bulk of the essay is occupied in the consideration of four main topics :

1. The indications for the operation.
2. The points of importance in connection with the operation itself.
3. The after-treatment of the disease and of the surgical wound.
4. The casualties which prevent recovery.

The author gives the opinions of various authorities on Croup as to the indications for the operation. According to Trousseau and Guersant, each of whom bases his opinion upon more than two hundred cases, the only insuperable contra-indication is profound diphtheritic infection of the economy.

The symptom *par excellence*, which calls for operation, according to Professor Heuter, is the marked sinking in of the front of the chest, especially of the lower end of the sternum. When the want of oxygen in the blood, or in other words the want of pure air in the lungs is strongly felt, the diaphragm and the other inspiratory muscles make violent efforts to draw as much air as possible into the chest. But if the free passage of air through the glottis is impeded and but little air enters the lung, the diaphragm does not descend as in ordinary respiration. Its central tendon becomes a fixed point, and its muscular fibres contracting, tend to draw its peripheral insertions toward the centre. The insertions of the diaphragm into the lower end of the sternum and the adjacent costal cartilages are the most movable, and hence these show most clearly the contraction, which draws these portions in powerfully with each inspiratory effort. There is also marked sinking above the clavicles from atmospheric pressure. This, however, usually sets in later than the depression at the epigastrium. Professor Heuter holds that these phenomena are of

more consequence in determining the question of operation, than the degree of stridor. As he says, "a great deal of dyspnoea may go hand in hand with little stridor, and a little dyspnoea with great stridor. Observation of the entire respiratory act affords a much safer estimate of the impediment to breathing." A dark blue color of the lips, and a pale and apparently œdematous condition of the cheeks, shows the retention of carbonic acid gas in the blood. "I consider that the hour for tracheotomy has come as soon as the substernal tissues sink in a marked manner on inspiration, and the blue color appears on the lips."

As regards the operation itself the author favours the use of anæsthetics, and chloroform is the anæsthetic which he prefers. Anæsthesia need not and should not be pushed to its full extent, as the carbonization of the blood has already produced a certain amount of anæsthetic influence. Most authorities appear to agree with these views, and find that chloroform relieves laryngeal spasm, thus enabling more air to enter the chest, while the movements of the trachea are lessened, the child lies quietly, and the physician is not interrupted by his struggles. The method of operating which seems to carry the greatest weight of authority with it, consists in making a careful dissection down to the trachea. As a rule there is no such urgent hurry in performing the operation as to prevent a dissection down to the trachea, and by so doing the risk of wounding the œsophagus, which has occurred in the operation by transfixion and incision at a single stroke, or of not passing the canula into the windpipe at all, is avoided. In the operation by puncture and incision, in several cases the canula has been found lying on the cellular tissue in front or at the side of the trachea.

Trousseau strongly disapproves of undue haste in performing the operation, and he said at the famous discussion on the subject, "A certain surgeon has reproached me with operating like a physician and not like s surgeon. Well, he had an opportunity, on one occasion, to operate like a sur-

geon, and with one stroke of his knife he divided the œsophagus as well as the trachea. Sometime afterwards he lost another patient by hæmorrhage during his brilliant operation. Since then he has operated more like a physician, and after a while he will become a very fair tracheotomist."

As a rule the author advises all hæmorrhage to be stopped before the incision is made into the windpipe, and this view is supported by most experienced tracheotomists. In making the incision care must be taken not to wound the posterior wall of the trachea or make a counter opening into the œsophagus. Sudden death may ensue from the flow of blood into the bronchi. False membrane may be present in the track of the knife, and the point of the knife may not pierce this, but push it back against the posterior wall, shutting up the wind-pipe, and rendering suffocation imminent. In these cases it is recommended to pass an elastic catheter to tear the substance loose, and through it air is blown to excite cough. Another danger is the falling of loosened pieces of false membrane upon the bifurcation, and their passage into the bronchi. This is to be overcome by aspiration through the catheter.

Heuter strongly advocates passing a catheter in every case of membranous croup, immediately after the trachea is opened, and suction should be made through it, to remove all pieces of membrane and blood which may have lodged at or near the bifurcation. The introduction alone of the catheter and its withdrawal will cause the expulsion of some of the blood and membrane without suction, which is not always free from danger to the operator.

After the trachea is incised its edges should be held apart by hooks and search made for the false membrane, as if it were a foreign body, and as much of it removed as possible before the introduction of the canula. Causes delaying the removal of the canula are treated of, and then the author goes on to speak of the after-treatment of the disease and the wound.

To this he attaches much importance, and as the statistics of tracheotomy show, it is mainly to increased care subsequent to the operation, that the comparative success since 1850 is due. The care of the canula is a matter of primary importance, and the author is very strict in his injunctions on this head. The casualties which prevent or retard recovery, as haemorrhage, inflammation of the wound, erysipelas, gangrene, diphtheria of the wound, and emphysema are discussed and their appropriate treatment given. In summing up the author draws the following conclusions:

1. That there are no insuperable contra-indications to tracheotomy in croup.

2. That the administration of an anæsthetic for the purpose of controlling the child's movements is admissible in performing the operation; but that it should be used with great caution.

3. That a careful dissection should be made down to the windpipe, and hæmorrhage be arrested before incising it whenever there is at all time to do so.

4. That the incision should be made into the trachea as near the cricoid cartilage as possible to avoid excessive hæmorrhage and subsequent accidents which might occasion emphysema.

5. That a dilator should be used or a piece of the trachea excised whenever any difficulty is encountered in introducing the tube.

6. That the tube should be dispensed with as soon as possible; or altogether if the case will admit of it.

7. That assiduous attention should be bestowed upon the after treatment, especially that of the wound; and that a skilled attendant should be within a moment's call for the first twenty-four or forty-eight hours immediately following the operation.

Periscopic Department.

SURGERY.

On the Treatment of Heat Apoplexy. By Surgeon-Major J. Davis, A.M.D.

When stationed at Ferozepore in the hot season of 1872. I was called one night to see a patient seized with heat apoplexy. On arrival at the hospital I found the man (an acclimatized soldier) had under the use of the cold douche become partially conscious, and he gave me to understand, by passing his hand across the part, that he was suffering from a sense of constriction around the lower portion of his chest; his breathing was laborious, and he was vainly endeavoring to take a full inspiration. It occurred to me that this state was due to some oppression of the respiratory nervous centre, and thinking cupping from the nape of the neck might be of use, I sent for the cupping case and applied as many of the smaller-sized cupping glasses as available from the occiput down the nape of the neck in pairs, taking blood with the two uppermost, using a temple scarificator; the glasses were only on a few seconds, when the man said "'tis gone now, sir." He became perfectly sensible, breathing natural and easy instead of laborious and imperfect; he recovered without a bad symptom. In one or two subsequent cases, the patients being fully insensible when the cupping glasses were applied, a similar favorable result took place. I had no further opportunity of testing the value of cupping until last year, when Surgeon-Major Scott kindly allowed me to resort to it with a patient of his, a man of E-8, R.A. On our visiting the patient we found him perfectly insensible; breathing labored and stertorous; the free use of the cold douche failed to arouse him in the slightest degree; he was turned on his side and the glass applied as before described. In

a few seconds, the man was perfectly conscious, able to answer questions, but inclined to sleep. Here, unfortunately, we did not let well alone, but resorted to wet packing, with the object of exciting some action of the skin, which was hot and dry. Coma again set in; the wet packing was at once removed, a free douching given, and the glasses again applied, to our great relief, with a similar favorable result. When we consider how oppression of the respiratory nervous centre interferes with the due performance of respiration, inducing congestion of the lungs (so fatal a complication in heat apoplexy), and how suspended or imperfectly performed respiration gives rise to oppression of the medulla oblongata resulting in coma and death, the importance of relieving the oppressed nervous centre becomes apparent; otherwise a vicious circle becomes established; the oppressed medulla interferes with the due performance of the respiratory act, and the imperfectly purified blood circulating in the brain in its turn further increases the oppression of the already damaged nervous centre.

I should, therefore, be glad if those who may have an opportunity of testing the value of cupping the nape of the neck in cases of heat apoplexy would kindly give it a trial and make known the results.

I may remark that the position in which patient lies in heat apoplexy has, I believe, more or less prevented cupping the nape of the neck being resorted to, and that to turn an insensible man, keeping him steady on his side while the glasses are applied, requires some little management.

To recapitulate, I recommend that in a case of heat apoplexy after the free use of the cold douche the patient should be turned on his side, as many small-sized cupping glasses as possible be applied from the occiput down the nape of the neck in pairs (one on either side of the spinal column) taking blood with the two uppermost. This treat-

ment need not interfere with the use of stimulating enemas, turpentine, &c., which indeed should in all cases be resorted to, so as to unload the lower bowel; neither should the use of the catheter be neglected.

DALHOUSIE, *5th April*, 1875. [*Indian Medical Gazette.*

Spina Bifida, Treated by the Elastic Ligature: Recovery.

The series of cases of so-called spina bifida, or, perhaps more correctly, meningocele, which have lately appeared in the *Journal*, induce me to contribute one which came lately under my care in the Leeds General Infirmary; more especially because I treated it in a different manner from those hitherto published, and the result was not only successful, but much more speedily attained.

M. F., aged 8 weeks, the child of healthy parents (who had previously twice had twins, one only of the four children yet surviving, but none having presented any malformation) was brought to the hospital on January 7th, 1875, on account of a globular bluish-coloured fluctuating tumour in the cervical region, of the size of a tennis-ball, which filled up the hollow between the occiput and the fold corresponding to the tops of the scapulæ. The tumour was pediculated, the pedicle being about the thickness of a man's thumb. The attenuated skin which covered it was too tense to admit of much impulse being felt when the child cried; but its transparency enabled one to recognise the arrangement of blood-vessels characteristic of the cerebro-spinal meninges. On pressing the point of the finger upon the under side of the pedicle, a small hole could be felt corresponding with the deficient arches of two (perhaps only one) of the cervical vertebræ. Here a slight impulse was felt when the child cried. The child was puny, and apparently not possessed of much vitality; but there was no paralysis, nor any deformity of the limbs. The parents were told that it would probably die soon in

any case, and that the only chance for it was the removal of the tumour, but that interference was scarcely justifiable. The child was then taken away, but in a week was brought back, the parents saying they had "considered to have something done" if possible. In the interval, the tumour had increased, and became more turgid and tense, seeming as if it would burst. I accordingly admitted mother and child, and having passed a fine elastic ligature four times tightly round the pedicle, enveloped the tumour in cotton-wool. All the first night, the child was restless, crying, and vomiting the breast-milk. Still it sucked, though the milk was rejected directly. A few drops of brandy in a spoonful of warm water given several times, checked the sickness, and thenceforth it began to thrive. The surface of the tumour soon became vesicated and the fluid contents oozed away, reducing the bulk. On the fourth day, the sac was sloughing. The ligature was partially unwound and tightened up. On the sixth day the pedicle separated, when no hole was visible, nor any oozing of cerebro-spinal fluid from the stump. The sac was examined, and found to be a true meningocele. The wound rapidly healed, and the child gained in weight daily, and was discharged at the end of the fortnight. It may be remarked, that the ossification of the cranial bones was less complete than usual at the end of eleven weeks. The anterior and posterior fontanelles communicated by means of an unclosed sagittal suture, and the sphenoidal sutures were also imperfectly united. When last seen, April 2nd, there was scarcely any scar to be seen, and very slight deficiency in the bones could be felt. The child was plump and healthy, but it had a certain idiotic wandering of the eyes.

EDWARD ATKINSON, M.R.C.P.Eng.,
Surgeon to the Leeds General Infirmary.

—*British Medical Journal.*

Death from Ether Inhalation.

Unfortunately, even ether, it seems, is not to be inhaled always with impunity. A boy, aged 16, was operated on by Dr. Hardie, of Manchester, at the Workhouse Infirmary, on the 3rd of April, 1875. Four drachms of ether were poured on a piece of lint and placed in a folded towel, which was held pretty close to his face. There was no coughing, and but little struggling. He was ready for operation in about four minutes without any more ether. The respiration suddenly ceased, and the pulse at the wrist became imperceptible. The tongue was pulled forward and the poles of a battery applied to the phrenic nerves. Cold water affusion, artificial respiration, and suspension by the feet were tried, without avail. The organs were found healthy. The cavities of the heart were empty. Probably death arose from syncope. Robbin's ether was used.

This is a most untoward event, because it may prevent the growing tendency to use ether instead of chloroform from spreading as it ought. Ether is certainly far safer and ought therefore always to be used instead of chloroform.—*The Doctor.*

The Dangers of Chloroform, etc., and the Nitrite of Amyl.

Mr. C. Bader writes to the *Lancet* that, some years ago, when nitrite of amyl was first used at Guy's Hospital, he with Dr. Goodhart, studied its effects, when taken internally, upon the blood-vessels in the healthy optic disc and retina. The effect, he says, is as rapid as it is striking. Three or four seconds after taking three drops of the drug on sugar the blood-vessels of the retina (arteries and veins, but especially the veins) become enormously dilated and gorged with blood, leaving no doubt as to simultaneously existing cerebral hyperæmia, with greatly accelerated circulation of blood.

Lately, after observing upon himself the effects of inhalation of the vapour of the nitrite of amyl, it occurred to Mr. B. that in cases of faintness or of defective breathing or heart's action, while under the influence of an anæsthetic, nitrite of amyl might be of use. He relates three cases to show the encouraging effects of this agent.

Case 1.—Given a mixture of alcohol, ether, and chloroform. Young man, hydrocephalic, inherited syphilis; iridectomised on both eyes; suddenly became pale, deeply insensible, with pulse and respiration very defective. Lint, with a few (three) drops of nitrite of amyl, was placed over nose and mouth. In two or three seconds a deep inspiration, followed by others, flushed face, quick pulse, and return of sensibility, were observed.

Case 2.—Given chloroform. A boy, pale, fat, blue lips and cheeks, became suddenly very faint (blue lips, blood turning black, breathing very imperfect. The same quick result, with vomiting, followed the inhalation of the nitrite of amyl (three drops).

Case 3.—Given chloroform. A middle-aged woman suddenly became blue in the face and stertorous (tongue falling back.) Lint with ten drops of the nitrite of amyl, was placed over mouth and nose. In a few seconds the blueness and stertorous breathing gave way to good colour, regular breathing, and sickness and vomiting, though no food had been given for several hours.

The most striking effects of the nitrite of amyl were the quick restoration of breathing, of a good colour, and the rapid appearance of sickness. It remains to be shown whether injection of this agent will have a still better effect.—*The Doctor.*

Poisoning by Aconite.

Dr. J. E. Blake, in an interesting article in the *New York Medical Journal*, relates a very important case of poisoning by aconite and chloroform liniment. An hour

after the poison was taken "*no pulse could be detected even in the axilla, and she remained without any trace of pulse for a period of over three hours.*" Nevertheless, Dr. Blake persevered all day and all night with galvanism and artificial respiration, and was rewarded by complete success. He had previously, within half an hour of the poison being swallowed, used the stomach-pump until fluid returned unimpregnated with it; but enough had been absorbed to do deadly work. This patient became early *unconscious*, and remained so for many hours. Yet almost all writers assert that in aconite poisoning *consciousness* continues to the last. Could the chloroform account for the unusual fact? The lady had taken "a little more than a drachm" of the liniment, which consisted of chloroform and tincture of aconite root in equal quantities.—*The Doctor.*

MEDICINE.

The Case of ARTHUR O'CONNOR, by HARRINGTON TUKE, M.D., F.R.C.P.

The case of Arthur O'Connor is a striking instance of the mistaken views frequently adopted by lawyers as to the value of medical evidence in cases of insanity, and also is an exceptionally strong example of the way in which an advocate, aiming at success, will do his utmost to discredit a medical witness, even although he feels the force of the facts upon which the expert has founded his opinion.

In April 1872, Arthur was arraigned for treason- felony. He had pleaded guilty before the Grand Jury; it is quite clear that he did so under a misapprehension. After some demur on the part of the Court, this plea was allowed to be withdrawn, and the trial proceeded.

The case rested almost entirely upon medical evidence. This was to the effect, that Arthur O'Connor had long been in ill health; his head had received a severe injury; since that time his disposition had changed. There was a strong

hereditary predisposition to insanity; had had a sudden idea to shoot the Queen, but had abandoned that course for one of intimidation. He had intended to attack Her Majesty in St. Paul's Cathedral on the Day of Thanksgiving for the recovery of the Prince of Wales. Turned out of the Cathedral at two in the morning, he had returned at eight; the crowd prevented his reaching it again, or getting near the Royal carriage. Persistently tracking the Queen, he at last got near her Majesty's person, climbing the iron railings of Buckingham Palace; he had time to present a pistol at the Queen's head before her attendants could arrest him. Upon him was found a coherent but insane document, purporting to be a pardon for the Fenian prisoners, and an order for O'Connor's own execution. Other insane documents were produced. These the counsel for the prosecution objected to receive.

I had seen the boy, at the request of his father, about three weeks previously, and found him to be clearly of unsound mind, entertaining insane opinions, that rendered him dangerous to others. In this view of the case I was strongly confirmed by Dr. Maudsley, who examined the boy with me, and also by Dr. Sabben, who saw him afterwards.

The paroxysm of insanity that led to his outrage seems to have lasted about six weeks, leaving him in his normal state of hypochondriasis and almost imbecility, with a tendency to recurrent attacks, in which he becomes dangerous. The subsequent history of his case entirely corroborates this diagnosis. While in Australia, this condition of insane hypochondriasis continued; and as to the state of his mind, it may be enough to mention that though at times fairly well, at others he had paroxysms of absolute mania. Among other eccentricities, he wrote letters to Her Majesty, one of which suggested that he should be made Poet Laureate, in succession to Tennyson. On the occasion of the last Drawing-room, O'Connor was found in an excited condition, waiting, it is supposed, for Her Majesty, near the very same

place at Buckingham Palace in which his former mad assault upon her was committed.

One of the Queen's physicians, and subsequently Dr. Tweedie, saw O'Connor with me before his arrest. The following is his own written account of his symptoms :

" Physical Symptoms. Back like ice ; want of ability to swallow food. Sinking in Stomach. In cold weather one moment—deadly cold, the next burning hot—pains in the head—completely stupified by cold weather—Mental—want of rest—thought continually revolving upon religion. Visions at night of angels hurling men down precipices to die for ever because they had not given up all they loved and go and sell Bibles to the unconverted. Sense that unless I gave up the drama, witty and convivial Society, novel writing, and the world completely I should be everlastingly damned. In a word, one unceasing mania concerning Jesus Christ—the intellect warring with extreme views yet unable to crush the ever revolving mania. Sense of utter want of constitution and energy in comparison to what I ought to be.

" Naturally I am a poet loving the dramatic writers and poet of nature and at one time of my life, ere I became physically debilitated, quite unsusceptible to the present mania, which leaves me no rest day or night. Of late my brain agony has terribly increased I awoke the other night raging to commit suicide ; the idea occurred as a very delightful one, and just as I was about to spring from my bed to act upon it—it passed off and left me trembling all over and utterly horrified.

" Since then my feelings have risen to absolute madness continually and I know very well it is all physical disease, a dead liver or something of the kind. My home is very wretched. it is in fact a hell to me.

" Naturally I am devoured by energy, running in my walk, and in everything else, but when stupified by dyspepsia scarcely able to drag a foot."

The apparently unanswerable evidence of the insanity of

O'Connor at the time of his outrage upon the Queen, was demolished by the Attorney-General in his cross-examination, mildly described in the *Times* as occasionally "caustic." This was done with great, but, it must now be admitted, with misapplied forensic ability; and, without hearing a single witness for the Crown the jury stopped the case, and found that the prisoner was, and had always been, of sound mind. This, perhaps, also stopped the Attorney General's speech—fortunately, perhaps, as I was his first subject since he had showered vituperation upon the Tichborne Claimant. The ultimate result of this trial should lead future counsel to pause before they utterly ignore experienced medical testimony, at all events, in the prosecution of cases of treason-felony. They may succeed in gaining a verdict, and for the moment overwhelming the physician with ridicule. But supposing, as time has proved in this case, they are in the wrong, hard labour and stripes, and a short imprisonment as a felon, are not likely to cure insanity; and the course taken by the Attorney-General might have imperilled the safety of the Sovereign. As it is, it has nearly led to her being seriously alarmed by the reappearance of the deranged and wild-looking young man near the royal carriage, in the same place where he had before eluded the watchfulness of her attendants.

Another result of the Attorney-General's "unfortunate" advocacy, (I have to thank him for applying to my evidence and so "teaching me that word") has been that three years have been lost; Arthur O'Connor is at last committed to Hanwell Asylum. Under gentle care and treatment in his first attack, he might have recovered. He may do so now, but his chances are materially lessened.

The characteristic judgment and clemency of Her Majesty led to the remission of the hard labour and whipping to which O'Connor had been sentenced, and also to a shortening of the term of his imprisonment. If this had not been so, a curious incident would have illustrated the mistake of the law advisers of the Crown: some of the Fenian

sympathisers seriously proposed to Mr. O'Connor that a procession should be formed to meet his son on his release, and to escort him with due honour to his father's home. It should be quite understood that Mr. O'Connor was entirely opposed to this absurd proposal. I have never noticed the caustic examination of the Attorney-General; nor shall I now, except upon one point—the one by which the jury, and indeed a large section of the public, were mainly misled. It is deserving of careful attention, because it constantly arises in criminal trials, and was in this of paramount importance.

The Attorney-General contrived to persuade the jury that, if they acted upon the medical evidence, the prisoner would be confined for life in Broadmoor Asylum as a criminal lunatic; whereas, if they took the legal view of the case he would escape with a comparatively trivial and salutary punishment. Now, this was trebly "unfortunate." It was purely an *ad captandum*, argument, and entirely irrelevant to the question of the truth of the evidence, which ought not to be, and was not, in any way biased by consideration of results. It, moreover, offered a temptation to the jury to do the wrong, that right might come of it. I was unfairly taunted with attempting to injure, while I was professing to assist. Now, stripped of forensic tinsel, the plain truth stands thus: the parents of the boy, who was then only 17 years of age, were convinced of his insanity, alarmed at his evidently dangerous condition, and most anxious to have for him any treatment that might permanently cure him; they were respectable people, who had been in a superior position, and they were averse to their son's being branded as a felon; it was, therefore, after anxious consultation with them and their counsel, that the course inveighed against by the Attorney-General was adopted; and, in the event of Arthur O'Connor's recovery at Broadmoor, his parents trusted to the strong evidence of the son's previous good character, and thoroughly relied upon

his being the subject of the never failing clemency of Her Majesty.

I freely forgive Lord Coleridge for his personal attack upon myself; it was possibly his professional duty to break down, by every possible means a witness hostile to his own views; but he must surely now deeply deplore his share in a proceeding which consigned a sick and insane boy to degrading punishment, and to a prison instead of an hospital, thus, perhaps, rendering him a hopeless lunatic; he may also regret that he treated a medical witness with much discourtesy, and ridiculed scientific evidence that has ultimately proved correct; and he must feel deeply that his unfortunate advocacy very nearly resulted in injury or alarm to the Royal Mistress whom it was his special duty to protect and defend.

I trust the case of Arthur O'Connor may either lead the English Bar to more extended study, or induce them to receive with greater attention and respect the evidence of those who make medical and other scientific investigations the pleasure and business of their lives.—*British Medical Journal.*

MIDWIFERY.

On Dr. Copeman's Novel Treatment of Obstinate Vomiting in Pregnancy. By GRAILY HEWITT, M.D., F.R.C.P., Professor of Obstetric Medicine in University College.

I have read the valuable practical paper by my friend Dr. Copeman of Norwich on the subject of the treatment of obstinate sickness in pregnancy, in the *British Medical Journal* for May 15th, with much interest. Dr. Copeman has described a process which he has, he states, accidentally discovered; viz., the artificial dilatation of the os uteri by the fingers as a cure for obstinate sickness in pregnancy. His results are remarkable, and, stated as they are by a gentleman of his known experience and accuracy, they are

very important. Dr. Copeman, to use his own words, does not "attempt to explain the *modus operandi* of the treatment suggested"; and I desire to offer what I consider to be the true explanation.

In the year 1871, I read a paper before the Obstetrical Society (see *Transactions*, vol. xiii) on the subject of this vomiting in pregnancy. I there enunciated the theory, which I supported by facts and observations, that obstinate vomiting, and indeed ordinary vomiting, in pregnancy are due to a flexed condition of the uterus, the compression of the tissues of the uterus at the seat of the flexion constituting the irritation which gives rise to the vomiting. My view was strongly criticised at the time, and, indeed, Dr. McClintock of Dublin was at the pains shortly afterwards to write and publish a paper, expressly directed to the abolishing of my theory. I have been content to wait until professional opinion was more ripe for discussing the matter calmly, believing firmly that my view expressed four years ago is in all essential particulars correct.

Dr. Copeman's clinical contribution of three cases has a strong and direct bearing on the above question, and the cases offer to my mind strong confirmation of the truth of my original statement. The three cases occurred respectively at six months, two months, and eight months, and in each case the vomiting at once ceased on dilatation of the os with the finger. In the second case, Dr. Copeman says the uterus was "anteverted." He gives no account of its condition in the other two cases, so far as flexion or version is concerned, Now, it is my belief that all three cases were alike; that there was, or had been, acute flexion in each case, and that the dilatation operation of Dr. Copeman effected good and removed the vomiting by reason of its also relieving the cramped condition of the cervix.

On the supposition (which I make as regards two, but which is a fact in one of the cases, according to Dr. Copeman) that there was flexion in all three, the os must have been far back, and, in order to dilate it, it must have been

pulled forwards. The dilatation would and must necessarily imply a righting of the os and lower segment of the uterus, and a consequent unbending of the organ; for I need hardly remark that to draw the os forwards would of necessity tend to tilt the fundus upwards. The uterus, as a whole, is on a pivot; direct pressure on or dragging on one extremity of it will affect the other extremity, and thus the process of dilatation, involving as it does the dragging of the os forwards, would practically aid in the placing of the whole organ in its proper position.

It is customary with obstetric authors to speak of the gravid uterus as being naturally anteverted in the first part of pregnancy. This is a statement which requires important qualification. There are degrees of anteversion. It is one thing for the body of the uterus to be rather easily felt by the touch through the anterior wall of the vagina, as it undoubtedly is in ordinary cases, but it is another for the roof of the vagina to be actually depressed by the abnormal descent of the enlarged body of the uterus when it is anteflexed. In the latter case, the os is always further back than usual, and, in marked cases, the body of the uterus is for the time completely jammed in the pelvis. It is under these circumstances that obstinate vomiting most commonly occurs. Retroflexion is equally operative in a quite analogous way; but I say nothing further on that subject at present, as it does not seem likely that either of Dr. Copeman's cases belonged to that category.

But it may be said, How do you explain the cases in which the vomiting persists as late as the eighth month, which was the fact in an acute flexion in the early part of the pregnancy; as the uterus enlarges (if abortion do not occur), the flexion is in most cases abolished, and the effect of this is, that the sickness generally disappears under such circumstances. But the tissues of the uterus at the seat of the flexion are sometimes left in a diseased state, being stiffened and unduly resistant, and thus the irritation is kept up.

Dr. Copeman's treatment would undoubtedly tend to remove this stiffening and constraint. He himself says, in his paper, "I wondered whether the relief to the vomiting so urgent and threatening to her life could have been effected by my having dilated the os uteri, and thus removed any undue tension which might be producing sympathetic irritation." Undoubtedly, there was undue tension; this tension was, I consider, situated at or near the internal os uteri, which is the situation of flexion under ordinary circumstances; and Dr. Copeman's procedure acted precisely in the way he conjectures. I submit to his careful judgment, and that of others accustomed to consider such problems, whether my explanation of the utility of his process is not the sound one.

I have been accustomed to treat cases of obstinate sickness in pregnancy by elevating the body of the uterus, and I have found that the same immediate good result follows as was observed in Dr. Copeman's cases: viz., the cessation of the sickness; but I am quite prepared to hear that traction of the os uteri forwards will produce a like effect. Both procedures have the same result; the liberation of the tissues of the uterus at the internal os uteri from their cramped compressed condition.

There are other details, but at present I forbear to say more on the subject. [*British Medical Journal.*

UNIVERSITY COLLEGE HOSPITAL.

We observe by recent exchanges that Mr. Erichsen, who has served as surgeon to University College Hospital for the past twenty-five years, has resigned that office. Mr. John Marshall becomes Senior Surgeon, and Mr. Christopher Heath takes charge of Mr. Erichsen's wards, and succeeds him as Holme Professor of Clinical Surgery. The wards lately under the charge of Sir Henry Thompson are assumed by Mr. Berkley Hill, who has, in addition, the surgical ward for children. A vacancy occurs, which is not yet filled, of Assistant Surgeon to the Hospital.

CANADA

Medical and Surgical Journal.

MONTREAL, JULY, 1875.

CITIZENS' PUBLIC HEALTH ASSOCIATION.

Recently an association with the professed object of improving the sanitary condition of the city of Montreal has been organized. It is composed of many of our leading citizens, and we trust that much good will arise out of its deliberations. There is great need of sanitary reform, and we fully expect that some definite scheme will be proposed to improve the assumed unhealthy condition of our city. If the association will earnestly enter into the work of reform, it will bring such pressure on the city authorities as to force them to adopt many needed sanitary improvements. There are many subjects of great moment to the sanitary weal of the citizens which should engage the attention of the Association. Very great good resulted a few years back by the earnest work of a similar association, whose hobby at that time was ventilation and cleanliness, in fact through the personal efforts of a few gentlemen who visited our citizens from house to house, ventilation and whitewash became the rage, which certainly improved the appearance if it did not the sanitary state of many a dingy suburban retreat.

We may remark *en passant* that our water supply is simply abominable. This we think should be a legitimate subject for the sanitary association to discuss. There does not exist in the enormously expensive machinery of our water works, any means of filtration. The citizens are supplied with water reeking with all kinds of animal and

vegetable refuse. If compelled to drink water, it is at least a satisfaction to see that it possesses the appearance of cleanliness, but to be supplied and forced to consume water which is in appearance as well as in verity filthy, is certainly anything but pleasant, and we do not wonder at the custom indulged in by many persons of mixing a drop of stuff with their water to correct it.

The waters of the Ottawa, which flow past our city, come down in a continuous stream several hundred miles from what is termed the height of land, receiving in its course the waters from tributary streams and rivers, so that it drains the entire valley of the Ottawa. In its course downwards it may be said to remove the refuse drainage and sewage of over half a million of people. We do not object to drink this water, although it is the common lavatory and sewer of this vast crowd, provided it is cleansed by filtration. People are probably not aware that at each ablution they strip from their bodies several ounces of its epithelial covering. This is in the form of an impalpable powder; it readily mixes with the water, is suspended in it, and can only be discovered by means of a high microscopic power. Of course we cannot see these scales with the naked eye; nevertheless they are there, and we swallow them and fatten on them, as nothing is lost which can be utilized by Nature. This is not pleasant to contemplate; it is disgusting, though not injurious. There are other substances, however, which are suspended in our water which are far less innocuous, and which give rise to disease and sometimes death.

This is a subject which can be discussed by the "Citizens' Public Health Association" with far greater advantage to the citizens than by silly and questionable remarks concerning our dirty back lanes. The water from our house taps is a kind of animal and vegetable compound, almost as thick as pea-soup, though not quite as savory; and the only means at the disposal of the tenant, with a view to improve its condition, is the use of a private filter. This is a luxury

enjoyed by the man of means ; the poor man is forced to drink the water as it is supplied, and thinks his water tax heavy enough without an additional tax for a filter. Hence as philanthropists and political economists, we should not only advocate but insist on the use of a public filter. It is a matter of fact based on observation, that the drinking water of Montreal is particularly noxious to strangers. Persons visiting our city, either on business or for pleasure, seldom get away without suffering from severe diarrhœa or cholera. It is by no means uncommon for these attacks to prove fatal. We need only to turn to our mortuary statistics to ascertain the fact that cholera, diarrhœa and dysentery are very often fatal during the heat of summer, and this principally amongst the floating population. The citizens themselves occasionally suffer though not in the same degree, as they become as it were accustomed to the impurities. But there are other diseases, equally dangerous to life, which may be produced by the impurity of our water supply—such as Typhoid fever, and the generation of the numerous family of entozoa, so commonly met with in children, and which are occasionally fatal. On looking over the work of Dr. T. Spencer Cobbold, on Helminthology, with reference more particularly to the internal parasites of man, the reader becomes horrified at the numerous forms, and injurious results of taking into our stomachs the ova or the young of various entozoa which live and generate within us.

These affections are known to be preventable, and with regard to cholera, diarrhœa and dysentery they arise frequently from some irritating material taken into the stomach, some substance which the body cannot utilize, and which is therefore cast out. Can we wonder at such a result, when we present as a beverage to our visitors a vile compound of human and animal excrement, fish spawn, vegetable refuse and germs of all sorts. Naturally the stomach rejects it, and what passes into the lower

tracts of the intestinal canal acts as an irritant and is thrown off. Why kill off our children by the host of bowel and other derangements induced by drinking these impurities? Our city parents do not like to assume the expense of a public filter, although we believe the expense would be trifling compared to the ultimate benefit to the fair name of the city. To this might aptly be applied the couplet:

"Kill a man's family, and he may brook it,
But keep your hands out of his breeches pocket."

"DOWN WITH THE DUST!"

So we cry inwardly when the parching simoon sweeps along our streets, searching every cavity of the face, down to the roots of each individual hair, and into every fold of our garments.—Cry inwardly we say, for who would venture to open his mouth as the excrement laden cloud pours upon him? Bleared and half closed eyes, gritty fingers, and discoloured pocket handkerchiefs testify to the ordeal to which we have been exposed when we "take our walks abroad." "Down with the dust!" we say again, this time aloud, when we have mopped away as much of the deposit as we can with a liberal allowance of the unfiltered element with which we are supplied, and which it does not do to examine with too critical an eye.

Unfortunately our City Fathers appear to be unable to come "down with the dust" in another sense, and exorcise the demon which torments us. Now that the Road Committee have resigned their scavengering functions to the Board of Health, who are supposed to have absolute power to appropriate "dust" for sanitary purposes we look for something decided. It is stated that all the watercarts are to muster and engage in the struggle. We sincerely hope it may be so.

The irritating nature of the dust in this city can be borne witness to by every resident. Perhaps the organ most exposed to its baneful influence is the eye, one of

the most delicate of the structures of the human body, and upon the integrity of which the bread of most of our fellow-citizens, depends. The dust laden with fine particles, many of them angular, makes its way beneath the lids, and by friction causes severe irritation. Irritation like this repeated every day for a period of three or four months in the year will surely bear fruit at last, in permanent weakening of the organ.

The delicate mucous membrane of the nose also suffers Such of us as can walk through the streets with our mouths firmly closed will not be likely to suffer so much from the inhalation of the powder, as children who do not know the danger, and who while at play almost constantly keep the mouth open. The dust, laden with deleterious material lodges on the sensitive mucous membrane of their air-passages, and causes in many instances much uneasiness and cough, while it cannot be doubted that it is a vehicle for numerous disease germs, which, lodging on the mucous membrane, find a suitable soil in which to germinate and multiply. Not only the germs of fever, but also those of entozoa may be thus disseminated, although for the latter we need scarcely look farther than our drinking water.

The breezes that we otherwise would hail as cooling and beneficial, we look upon with dread. May we not often see a puff of wind turning a corner, see it not in the sense that pigs are said to see the wind, but see it in its effects, the cloud of dust which it carries with it, gathering strength, (and dust), as it bears down upon us, until we fairly have to turn our backs to escape the murderous attack? Not only are we exposed to the limestone shower laden with its quota of disease germs, but we also come in for a share of finely divided animal excrement. We confess to a liking in a general way for the lower animals, and the odour of a cow-stable is reputed to be beneficial in some diseases, notably in consumption, but we have a decided objection to fæcal inhalations of the kind to which we are daily treated. As we belong to the

class which is habitually clad in sombre colored garments, we say nothing of the damage done to the more delicate fabrics for summer wear, by the searching and penetrating material which floats about in the atmosphere, but were we of the softer sex we think that we could make out a strong plea for pure air and less dust on that score alone.

In conclusion, we sincerely hope that the nuisance may soon be abated by the proper means at the command of the Sanitary authorities, and that we may before long hear Montreal spoken of as one of the cleanest, as it already is as one of the most prosperous cities on the American continent.

A SMALL POX HOSPITAL.

We publish below an excellent letter from the columns of the MONTREAL GAZETTE, and from the pen of Peter Redpath, Esq., President of the Montreal General Hospital. Coming from such a source we trust it will have due weight in the City Council. Mr. Redpath shows clearly the absurdity, we might say the insanity, on the part of the city authorities in attempting to shove off the responsibility of establishing a small-pox hospital.

The emergency has to be grappled with, and if we as a city, honestly desire to improve our sanitary condition, as touching infectious diseases, we must assume without further delay all reasonable responsibility in the premises. This may be attended with considerable outlay which must be met, and if need be, by a special tax for hospital purposes. We cannot but express surprise that a return to the scheme of having two separate hospitals should have been mooted. A hospital for the purpose of aiding in stamping out a highly infectious disease ought to be under the government of the municipal body. It is the Corporation of the city to whom the citizens look for the enforcement of rules and regulations which are deemed advisable for the general welfare of the community. If the

representatives of the citizens are unwilling to carry out necessary sanitary measures, the government of the country should be memorialized to step in and do the work or have it done at the cost and charges of the city. We should suppose the Provincial Legislature has this power, and if the citizens of Montreal cannot succeed in obtaining from the city council common-sense views on this important subject they had better at once ignore the very existence of mayor and aldermen and go to a higher power for redress.

In the last number of our journal we copied from a Boston paper a statement to the effect that during the year ending 1st May, 1875, no case of small-pox had been recorded as occurring in the city of Boston, which was the first occasion that such a statement could be made for the past twenty years. On reference to the report of the Trustees of the City Hospital, Boston, for the year 1873—an institution which is supported at an annual cost of over $100,000 by the city authorities of Boston—it will be found that from April to August of that year, during an epidemic of small-pox, there was disbursed for the maintenance of the small-pox hospital $10,219.93. Who will in all honesty say that that amount was not well spent when it resulted in the proud announcement a few months later that "not a single case of small-pox was recorded as occurring in the city during the past twelve months?"

SMALL-POX HOSPITALS.

To the Editor of the Gazette:

Dear Sir,—Public attention has been drawn to the necessity for increased accommodation for small-pox patients, but nothing permanent has been done to meet the emergency, apparently because of uncertainty as to the best course to pursue.

The City Council has offered to the ladies of the Hotel Dieu and to the Montreal General Hospital the sum of $25,000 each, with the conditions of their erecting isolated

buildings for the purpose, with provision in each for fifty patients at a time, and that they should respectively assume the whole cost of subsequent maintenance.

With the view of helping to avoid mistakes in accomplishing the object, I venture to express the opinion that even if this proposition be accepted and acted upon by those to whom it is addressed, the end will not be adequately attained.

The number of small-pox cases existing at one time during the last two or three winters must, I think, have been much more than one hundred, and if, as I believe, it be intended to remove all cases to the hospitals, the responsibility of providing for the excess over one hundred would still rest with the City Council.

Among many considerations which the question involves, I respectfully submit:—

1st. That the best authorities on the construction of hospitals maintain that the ground upon which an hospital is erected should afford an area of not less than about five hundred and forty square feet to each patient. Assuming that more is not required for infectious diseases, a building adapted for fifty patients should stand on an area of about twenty-seven thousand square feet. I am strongly of opinion that justice would not be done either to the patients or to the community if a more limited site were chosen.

2nd. The cubical air space provided for each patient should certainly not be less than fifteen hundred feet; two thousand feet would be much better. This estimate demands from seventy-five thousand to one hundred thousand cubic feet of ward accommodation for fifty patients. The offices, service, and administration would probably require at least half as much more, which is a smaller proportion than the space applied to these purposes in an ordinary hospital.

3. The heating and ventilating arrangements should be on the best possible plans, especially as the resources of the hospital would be most taxed during the winter.

It is obvious that if a building were constructed on the

basis of the requirements I have stated, in the most economical manner that could be devised, it would absorb a large proportion, if not the whole, of the proposed grant, leaving nothing for the cost of ground or for subsequent maintenance. The possibility of a future demand for additional help must, therefore, enter into your calculation.

I have no possible knowledge on the subject, but I have the impression that hospitals for infectious diseases are usually controlled by the municipal authorities. I observe in a newspaper accidentally beside me, an advertisement in which the Sanitary committee of the City Council of Halifax, N.S., asks for tenders for the erection there of an hospital for contagious diseases. I can readily understand why the duty should be distasteful to the City Council, but it is not the less a duty. You have made an experiment and found it an expensive one, but it has been made under circumstances which did not allow time for economical arrangements. There is no good reason why an hospital for small-pox patients should not be carried on as economically by the City Council as by any other corporation. The responsibility of it should rest with those who by a vigorous and judicious administration of their own laws, can greatly diminish, if not entirely extirpate the disease, existence of which is attended with such great expense as well as such danger to the citizens.

I believe that a civic hospital constructed on a suitable site, and on principles which I have partly indicated, would best meet the requirements of the case, and would before long be regarded with favor by the whole community.

I am, dear Sir,

Yours, very truly,

PETER REDPATH.

Montreal, 17th June, 1875.

BOWKER VS. BEERS FOR LIBEL.

This case has occupied the attention of the Courts for some years past, and is we believe finally settled before the Court of Appeal.

It arose out of an article from the pen of Mr. Bowker, in which that gentleman condemned the use of amalgam and mercury paste for filling teeth. This article we published in our Journal in the number for January, 1870, being the sixth vol. Canada Medical Journal. Mr. Beers replied in an article to which we gave insertion in the following No. for April. Subsequently Mr. Beers published in his own Journal, "The Canada Journal of Dental Science," an article in which he accused Mr. Bowker of making use of the amalgam of mercury, in his own practice, for the filling of teeth; and out of this accusation arose the action in question. In the course of the trial very conflicting evidence was given touching the question of the possible injury to be done by the use of amalgam paste for filling the cavities in carious teeth. This was a side issue raised by the defendant, and had nothing whatever to do with the question before the Court, a ruling which is evidenced in the judgment which we give below, taken from the GAZETTE:

COURT OF APPEALS—JUDGMENT.

Present: Chief Justice DORION, and Justices MONK TASCHEREAU, RAMSAY and SANBORN.

W. G. Beers (defendant in Court below), Appellant, and H. M. Bowker (plaintiff below), Respondent.

TASCHEREAU, J., dissenting.—The respondent sued the appellant for libel contained in an article published in the *Canada Journal of Dental Science.* The article in question charged the respondent with having used professionally as a dentist a certain amalgam mineral paste for filling teeth. The plea of Beers was that Bowker had previously in an article published by him in the *Canada Medical Journal,* stated that the use of amalgam, a pernicious compound, was encouraged by the Dental Association of Quebec, of which Beers was a member. I would reverse the judgment

which condemned Beers to pay $10 damages, and put the parties out of Court, leaving each to pay his own costs.

DORION, C. J.—We have not to decide whether the amalgam was pernicious or not. The question is whether Beers did not libel Bowker in accusing him of using a substance which the latter had asserted to be injurious. The charge of using it is not proved, and under the circumstances there would be an injustice in putting the parties out of Court. The judgment must be confirmed.

RAMSAY, J.—Dr. Bowker is a very fortunate litigant, because by writing in a very lively style he laid himself open to an answer. But the answer was too severe, for it made out that Bowker was using a substance which, by his own confession, was an injurious poison, to fill teeth with. Bowker had to defend himself from this charge. There was no plea of compensation fyled, only one of provocation. But the Court says: You went further than the provocation; we have not to weigh two injuries; therefore, we have to say that some damages are due. The Court has fixed the damages at $10, and I think that is enough, considering the excessive sharpness of Dr. Bowker's article on a scientific question and one of great nicety.

SANBORN, J.—I don't see any question of compensation here at all: Bowker's charge was against a body of men, not against an individual. If you accused all Irishmen of being bad, an individual could not bring an action for that. Beers answered by a charge that amounted to this: that Bowker was an impostor because he was guilty of using the very same poisonous amalgam that he had condemned. that was the real gist of the charge. Every one knows that there is a good deal of disputing between gentlemen connected with the healing art, probably because there are no umpires in that profession. In the legal profession there are the judges to decide, and they become the objects of criticism.

Judgment confirmed, Taschereau, J, dissenting.

Messrs. Carter & Keller for the appellant, and Messrs. A. & W. Robertson for the respondent.

PUBLIC HEALTH MAGAZINE.

We have received the first number of a magazine, with the above title, a periodical which is destined, we hope, to do much good in the community. Its mission is educational, and if conducted in a proper spirit so as to call the attention of the masses to all subjects bearing on the laws of health, we doubt not that it will be a success, and take rank as "an authority" in Sanitary science to which it aspires.

This journal is edited by Dr. George A. Baynes, a gentle man who has already given evidence of his devotion to Sanitary subjects by a very excellent course of popular lectures delivered by him during the past winter, as also by a brochure on the disposal of the dead, which is worth reading. We wish the periodical every success ; it is very neatly gotten up, and is issued from the printing establishment of John Dougall & Son.

MEDICAL OFFICERS IN THE MERCANTILE MARINE.

We notice that a return has been made to the British House of Commons on the motion of Captain Bedford Pim, of the names, ages and nationalities of persons who have served, during the past two years, as surgeons in the merchant service. The number returned was 224, none of whom were registered in the United Kingdom. We suppose that some of these gentlemen are Canadians as it is customary for the owners of Canadian steamships to occasionally appoint a young Canadian Physician and Surgeon to fill the post. We may state that one of the necessary requirements for that position is that the applicant must be registered in the Province from whence he hails—and in fact no appointment is made without the recommendation of the heads of some of our educational bodies, The owners are particularly careful in the selection of Surgeons, more especially in passenger ships, and we have no hesitation in saying that those surgeons from Canada to be met with in any of our Canadian lines of steamships are thoroughly qualified were and are registered in their own province,

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Scarlatina miliaris. By Wm. Osler, M.D., Prof. Institutes of Medicine, McGill College.

C. S., æt. 9, had been convalescent for over two weeks from a moderately severe attack of small-pox, and was only remaining in hospital on account of two ulcers in the leg. During the night of the 30th of June she sat up with the nurse till 4 A.M. watching a dying child, and as on getting up at 7 A.M. she complained of a few pains in her back, and looked very pale and unwell the nurse sent her back to bed. She was not sick at the stomach, nor had she any shiverings. Up to this time she had been doing very well, and no change had been noticed in her health. About 9 A.M., the nurse observed that she had become of a bright scarlet color. At the visit, at 4.45 P.M., there was intense hyperæmia of the skin, the whole surface being of a brilliant red colour, and on touching gave the impression of pungent heat. The redness was diffuse and uniform, only here and there, on close examination, a punctiform character was observed.

Throat not sore; tongue thickly coated; pulse 140; temp. 101.

July 2nd. 8.45 A.M. Had a tolerable night. Pulse 136; temp. 104. Tongue coated. Eruption remains, being even more intense, and some additional features of interest added. Thickly scattered over the whole trunk, upper extremities and thighs, are small miliary vesicles about the size of No. 4 shot, tolerably firm to the touch, and filled with a yellowish creamy fluid. Over the nape of the neck and back they are so closely set that hardly any

intervening skin can be seen. On the dark brown cicatrices left by the varioles they exist in groups. On the arms they are not so numerous, but on the extensor surfaces, especially about the elbowjoint some of them have coalesced to form large bullæ, which are filled with the same yellowish-white matter. Only a few of the vesicles are evident on the legs, but on close inspection small, clear, subcuticular papules are seen, like the vesicles in an early stage of development. Legs and feet are somewhat swollen.

5.30. P.M.—Pulse 148; temp. 102.4. Tongue very much coated. Bowels opened once freely. Feels heavy and is not disposed to take much nourishment. Face suffused, but general redness not quite so marked. Vesicles on back and chest appear firmer to the touch, and on squeezing a portion of skin their contents do not flow out so readily. They also exist in numbers over the scalp, and are very thick on the forehead along a narrow strip just at the roots of the hair. Only a few are present on the face, and these are larger and more of the nature of bullæ. On the trunk and thighs they are most numerous, and on passing the finger over the skin in these regions the sensation of closely set fine papules is experienced.

The legs are œdematous, bright red in colour, and—especially about the small ulcers, which have now scabbed over—have a glistening aspect. Fauces and pharynx look quite natural, and are not at all congested. Urine normal in quantity, not very deep in colour. Sp. gr. 1015. Examination of the contents of the vesicles show them to be made up entirely of pus corpuscles, mixed with a considerable quantity of granular matter.

3*rd*.—8.30 A.M. Pulse 128; temp. 99.4. Tongue has lost its white coating and is now of a dark red colour, somewhat swollen and with papillæ prominent. She had a very good night and made a fair breakfast this morning. General redness still evident Vesicles drying and disappearing on the chest. None have appeared on the legs, which are much less swollen to-day. Back and thighs very rough to the

touch from the partly desicated vessels, feeling like pig-skin or exaggerated *cutis anserina*. General symptoms good. Urine abundant, pale, and contains no albumen.

5.30 P.M.—Pulse 120 ; temp. 99. Tongue a little dry, dark in colour and studded with swollen papillæ. Rash fading on chest and extremities, still very intense upon the back. Some of the miliary vesicles have burst and disappeared from the trunk, leaving the skin roughened in parts. Several large ones exist now on the backs of the hands, which are filled with a purulent fluid, and similar ones, though larger, still remain upon the extensor surfaces of the arms. Feet and ankles have lost their glistening appearance and are not so much swollen. A few vesicles have come out upon the legs. Over the whole scalp the vesicles have uniformly coalesced, and the contents form a thin layer of purulent matter,—a miniature of what is sometimes seen in bad cases of confluent small-pox. Pain complained of in the back of the neck, a region where the vesicles were [illegible]t abundant, and in drying have left it hard, rough and [illegible]. General symptoms continue good ; bowels opened [illegible] ; urine contains no albumen. Sp. gr. 1012.

4th. 10, A.M.—Had a good night ; pulse 100 ; temp. 98.2 ; tongue moist, brighter in colour, and papillæ not so prominent. Throat natural. Skin still hyperæmic, especially about the back. Desquamation of fine, small crusts and thin scales beginning on the chest. On the back of the neck and about the axilla, the crusts are semi-detached and can be readily picked off. Back and abdomen still rough and granular, and on close inspection the dried remnant of each little vesicle can be seen. A few purulent bullæ still persist about the hands and legs. Urine pale in colour ; normal in quantity. Sp. gr. 1011. No albumen.

6.30 P.M.—Pulse 96 ; temp. 98.2. Tongue clean. Rash disappearing and desquamation progressing. Says she feels quite well.

5th, 9.30. A.M.—Pulse 88 ; temp. 98.2. Back covered with scales and fine crusts, which are rapidly becoming detatched

and falling off. On the limb the scales are smaller, thinner and more furfuraceous. 6, P.M. Pulse 84 ; temp. 98.3.

6th,—Pulse 92 ; temp. 98. Desquamation proceeding rapidly, crusts almost all off the back and neck. Appetite good.

7th.—Pulse and temperature normal. Thin flakes of epidermis are peeling off the arms and legs. On the trunk the scales are smaller but exceedingly abundant. The back is still very rough and covered with small, fine scales. Urine natural.

8th.—Desquamation beginning on the face, and crusts can easily be picked away from the roots of the hair.

Appetite good ; asked for meat.

9th.—Feet and legs covered with membranous flakes. Body quite clean.

12th—Desquamation nearly completed. Urine abundant, pale. Sp. gr. 1010. No albumen. Microscopical examination negative.

16th—Had a bath which has removed the rest of the scales. Several small pustules — Acne — have appeared about the face.

20th.—Quite well ; ordered to be discharged.

Remarks.—A local eruption of miliary vesicles occurring in Scarlet fever is not uncommon enough to demand notice, but such a plentiful crop as was present in this case is rarely met with, even in epidemics characterized by this peculiarity. The pustular nature of the contents of the vesicles, from the first, their curious confluence on the scalp, and the existence of pemphigus-like blebs on the limbs, brings the case into the category of those described as Scarlatina pustulosa.

Not a little confusion would appear to exist as to the forms of Miliaria, and their relations to Sudamia, Hebra. Neuman and other German authors describe three forms : *rubra*, *alba*, *crysalina*, of which the two former constitute Sudamia, while the latter is regarded as Miliaria proper. Again miliary vesicles, as described by the above authors,

contain a watery, transparent fluid, of a feebly alkaline or neutral reaction, the contents of which never became pustular. In English works they are spoken of as cloudy, turbid and purulent from the comencement. Sudamia, according to the latter, are clear, transparent vesicles produced by sweating; Miliaria are turbid and purulent, not necessarily produced by sweating, but occurring often at the height of a febrile affection. These miliary vesicles correspond to Hebra's M. alba, which he reckons as Sudamia. Fox strikes at the root of the matter when he calls Miliaria inflamed Sudamina. There can be no doubt that, given suitable conditions—active hyperæmia of the skin with consequent augmented temperature and increased supply of pabulum—the minute particles of protoplasm, which exist in the fluid of almost all vesicles, would develop into pus corpuscles, just as they can be made to do outside the body in the serum from a blister.

In this case the vesicles appear to have developed independently of any sweating, and to have been pustular from the outset. The first morning they were noticed, I looked carefully for any trace of clear vesicles, but about the trunk none could be detected. On the legs, however, certain clear, sub-cuticular papules did exist, which from some cause or other did not develop, but it may have been—probably was—in this way that the Miliaria originated.

Quite an exceptional feature in this case, and one very rarely observed, was the entire absence of any affection of the throat. I examined her carefully, twice every day in a good light, and not even a trace of congestion was seen from first to last.

An interesting question arises: where are we to look for the source of infection? The small-pox department is separated by a considerable interval from the general wards as well as from the houses about, in both of which places scarlatina is rife. If we are to suppose the Scarlatina poison to withstand dilution to such a degree that it remains active after passing through the wide space which

separates the Small-pox hospital from the neighboring buildings, can we attribute a minor degree of vitality to the small-pox germs which must be wafted out of the ventilating shafts in countless numbers to be distributed in the neighborhood ? Experience has taught us that we cannot.

Another, and perhaps more likely, source of infection must not be overlooked. On the 11th and 12th ult., I attended for a *confrere* a case of Scarlet fever in the immediate vicinity of the hospital, and on the evening of the 12th I went direct from the house to the hospital. At this period she was almost convalescent. The stage of incubation is so variously placed by different authors, ranging from three days to a month or more, that this may have been an instance of prolongation of the period of latency. With an impoverished condition of blood the Scarlet fever poison may not have met with sufficient quantity of that "mysterious something," different for each exanthem, upon which the germs are supposed to live, grow, and at last, happily, exhaust; and hence a lengthened period of incubation, with retardation of the eruption.

Case of Multilocular Ovarian Tumour.—Removal.—New Method of Ligaturing the Pedicle. By JOHN BELL, A.M., M.D.

On the 14th of June, I was requested by Madame M. to see her daughter who was suffering from a tumour in the abdomen. I saw her the next day, and diagnosed the tumour to be ovarian and cystic in its nature and recommended its removal.

The patient, a French Canadian, recently came up with her family from Rivière du Loup, *en bas*. She is 21 years of age, single, of medium height, of well-developed figure and frame, with pale or rather sallow skin. Until the last few days she had been able to walk about with comparative comfort, but now she spends most of the time lying down. Her appetite has been habitually poor, and there were but

few articles that she relished. Has suffered occasionally from vomiting. Her urine is not albuminous.

At the request of the patient and family, Dr. G. W. Campbell kindly saw her in consultation with me on the 16th. After examination of the tumour he pronounced it to be of the above character and probably unilocular from its globular form. Considering the extreme distension of the walls of the cyst, and the near approach of the hot summer weather, together with the otherwise favorable nature of the case, he advised its removal without unnecessary delay.

The dangers of the operation and probabilities of success were fairly stated to the patient, and after a week's consideration she consented to have the tumour removed on Saturday the 26th June as Dr. Campbell was going out of town for his summer vacation in the beginning of the following week, and she was anxious to have him present at the operation.

On the 23rd Dr. Ross saw the patient with me and a careful examination of the tumour was made. The circumference of the abdomen at the umbilicus measured 39 inches. A line from the ensiform cartilage to the umbilicus measured $7\frac{1}{2}$ inches ; umbilicus to pubic crest 7 inches ; from umbilicus to right sup. spine ilii, $8\frac{1}{2}$ inches ; umbilicus to left sup. spine ilii 9 inches. The outer side of the hips were marked by numerous *lineæ albicantes*, but there were none on the abdomen. The tumour is firm and globular, being slightly more protuberant on the right side, and rests across the brim of the pelvic canal, not descending into it. The cervix uteri is normal in size and position or perhaps a little higher in the pelvis than normal, and the sound shows the uterus to be of normal size, but with the fundus thrown somewhat to the left. The uterus is more fixed than usual and can be moved farther to the right than the left side, from which it is surmised that the tumour is one of the right ovary. Fluctuation was indistinct in every part of the tumour but most perceptible on the right side, which

Dr. Ross thought was due to the density of the cyst fluid and the presence of a large cyst on the right, with a mass of smaller cysts on the left or flatter side of the abdomen. Percussion showed the intestines to be displaced chiefly to the left side, and the liver considerably upwards, the colon being resonant throughout. The anterior abdominal wall was freely movable over the surface of the tumour conveying a leathery creaking sensation to the hand. The diagnosis was therefore that the the tumour was unattached by adhesions, multilocular and of the right ovary; the cysts containing dense fluid and one on the right side being much larger than the others.

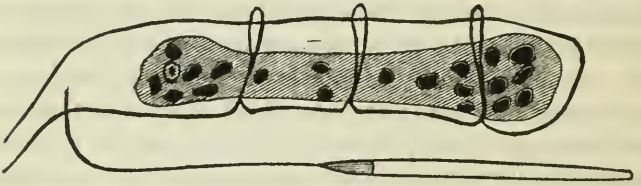
The tumour was first noticed in December last (1874) as a small lump in the right inguinal region. It never caused any pain or discomfort except what arose latterly from its size and weight. The patient has never enjoyed very robust health, but there is nothing peculiar in the history of the case that might point to the origin of the degeneration. Menstruation was at first regular; it then became suppressed for three months and has lately taken place every two weeks.

June 26th. Operation at 11 A.M., in an airy room on the third flat of the patient's home, which is situated in a healthful locality, with numerous trees in the gardens and yards around. Present, Drs. G. W. Campbell, Hingston, Fenwick, Carlyle of Toronto, Craig, Ross, Roddick, Patton, Cameron and Mr. Stafford. Dr. Cameron of the General Hospital kindly gave chloroform, and continued the anæsthesia with ether, of which about a pound was used. She took the anæsthetic well, although at times she became rather weak. The bladder having been emptied with a catheter, an incision of four inches in length was made, in the median line through the skin, a thick layer of fat and the subjacent tissues down to the tumour whose walls were thick, tense and marked with very large veins. On introducing the hand which was done with difficulty, no adhesions were found, and the fundus uteri could be felt to the front

and left side of the tumour whose pedicle was tightly drawn across its front surface and attached to its right side, thus causing the pedicle to be long and thin. The tumour had evidently been rotated by the filling of the larger cysts changing its shape. The patient was turned on her right side, with the pelvis facing downwards, and one of the Spencer Wells' large Canula Trocars, with rubber tube attached, was introduced into the tumour. Only a small quantity of thick, viscid, greyish, flocculent fluid appeared. By repeatedly pushing the cutting part of the instrument, further in different directions some pints of this fluid flowed out. A small quantity of blood appeared in the fluid as the wall of each new cyst was entered. The walls of the abdomen being now closely held against the tumour, a tenaculum forceps was fixed in the cyst at each end of the abdominal wound, and an incision made between them into the tumour. The incision was carried through a considerable thickness of small cells before the larger cyst at the right was reached. The hand was now introduced to break up the remaining cysts, some of which protruded into the cavity vacated, and seemed to be arranged concentrically inside one another. All the cysts contained the same kind of fluid, and as it gradually poured out the sac was gently drawn down until the mass passed out through the wound. The pedicle was long, thin, and about three inches broad, the lower border containing a number of enlarged vessels.

A ligature of Prof. Lister's No. 3, carbolized catgut doubled, was applied about midway between the tumour and the uterus, in the following manner, which is like the ordinary lock-stitch of a sewing machine. The double catgut was drawn through the eye of an aneurism needle to near the middle of the ligature. The blunt point of the needle was passed through the pedicle, about three quarters of an inch from its lower border, and then withdrawn along the longer end of the ligature, leaving a loop of the catgut on the opposite side. The shorter end of the ligature was brought round and passed through this, and the loops sub-

sequently made. The aneurism needle, still armed with the longer end of the ligature, was again passed through the pedicle about ¾ of an inch from the first loop and again withdrawn along the longer end of the ligature, leaving a second loop, through which the shorter end of the ligature was continued. In the same manner a third loop was made and the needle slipped off the ligature, whose ends were now tightly drawn and tied over the upper border of the pedicle. By this method the four divisions of the pedicle



were not only tightly ligatured individually, but were also so forcibly pressed together collectively, that, had any of the vessels been wounded in passing the needle through, all risk of bleeding from the punctures was removed. The ends of the ligature were again tied round the whole circumference of the pedicle, folding it up in its grasp. The pedicle was severed close to the ligature, as there was no danger of the latter slipping. The gaping ends of the enlarged vessels showed no sign of bleeding. One of the largest arteries was, however, secured with fine catgut in the end of the stump as a matter of precaution, and the ends of the ligature cut off short. The circumference of the pedicle compressed by the ligature was not greater than one's thumb. The now retracted uterine end of the pedicle was dropped into the abdomen, and a very small quantity of coloured fluid, brought to the wound by pressing the abdominal walls, was removed with a carbolized sponge. The left ovary was healthy. The wound was closed by four deep carbolized catgut sutures, each including about half an inch of peritoneum on either side of the incision. Superficial sutures of smaller catgut, between the deeper ones, completed the perfect co-aptation of the edges

of the incision. The wound was dressed with dry cotton wool, previously prepared by pressing it out of an alcoholic solution of carbolic acid, with a broad flannel bandage encircling the body.

On being removed to bed she was restless for a while, eructating occasionally from the effect of the ether, and when awake she expressed herself as "mal, mais pas de douleur." A teaspoonful of brandy and water was given her, but it caused pain to swallow. In half an hour 30 drops each of laudanum, and solution of morphia, were given as an enema,and almost immediately she fell asleep for an hour. After being awake for a short time she again fell asleep, and had been sleeping soundly, on her right side, for some time before I left at 3. 15, P.M.

26th, P.M.—Pulse 124; Temperature, 102.3. Patient slept for some time after I left. Had taken some beef-tea, but had vomited, or eructated it several times. Gave five drops of chlorodyne (Browne's) in a little brandy and lime water. To be repeated if required.

12 P.M., (Midnight). Pulse, 132; Resp. 31; Temperature, 102. Had vomited a mouthful of beef-tea twice. Slept several times. Some eructation. Perspiring freely. Talks and laughs. Has no pain; feels "bien, mais faible." Takes ice, milk, limewater and brandy in small quantities. 8 oz. dark urine of slightly ammoniacal odour removed by catheter.

27th. 10.30 A.M.—Pulse, 120; Resp. 40; Temperature, 101.7. Slept nearly all night in short intervals. Perspired freely. Vomited three times, the last bilious. Tongue clean. No tympanites. No headache. Pupils slightly contracted, as she had taken 25 drops of chlorodyne since the operation. Has had altogether about a tumblerful of milk, beef-tea and limewater, with three teaspoonsful of brandy since last visit. 6 oz. dark urine, of a normal odour, removed. To have champagne in small quantities.

6 P.M. Pulse, 132; Resp. 40; Temp. 103.3. Has not vomited since. Perspired. Feels occasional "coups de

douleur " in the wound. Has slight sore throat. To have m j Fleming's Tr. Aconite every hour, until further orders, with spirits and water to moisten the head, as the weather has been very warm and " close,"—the temperature in the shade being 84, Fahr. Her urine was removed regularly three times a day, and measured from 4 to 6 ounces each time.

12, P.M.—Pulse, 120; Resp. 35; Temperature 102. The head to be sponged with spirits and water, as she finds the warm still air very oppressive.

28th, 8.30 A.M.—Pulse, 118; Resp. 35; Temp. 102.7. Slept nearly all night—awaking only at intervals. No pain. Pupils slightly contracted. Vomited twice. Abdomen commencing to be tympanitic. 6 oz. dark urine, of normal odour. Examined the wound and found the dressing dry and only stained along the line of the incision, which is apparently perfectly healed throughout. To continue aconite and be sponged occasionally.

6, P.M. Pulse, 114; Resp. 30; Temp. 102.7. Has passed a small quantity of flatus per anum three times. Vomited (five times, rather freely—ejected matter coloured with bile.) Has occasional shooting pain in belly. Face flushed Pupils normal.

11. P.M.—Pulse 124; Temp. 102.8. Dr. Gardner saw her with me at this visit. Vomited a little. Considerably more tympanites. 4 oz. dark urine. On introducing the finger per anum, the rectum was felt above distended with wind, which seemed to be retained by a flexion of the bowel. Given enema Tr. Opii ℥j. Essent. menth. pip. ℥ ss; aq. ℥ij. To be sponged every three hours.

29th, (Tuesday) 9 a.m.—Pulse, 114; Resp. 25; Temp. 102.3. Slept from 12.30, and from that to 5 without interruption, Feels refreshed and " bien " without qualification. 6 oz. urine.

11, P.M.—Pulse, 128; Resp. 26; Temperature. 103. Dr. Fenwick saw the patient with me at this visit. Face flushed. Sore throat gone. Slight sanious discharge from

the lower end of the wound. Two broad strips of plaster a yard in length, were applied across the wound, and around the body for support, in addition to the cotton and flannel. 5 oz. of urine.

6 P.M.—Pulse, 140; Respirations, 29; Temp. 102.7. Vomited twice. Pupils somewhat contracted.

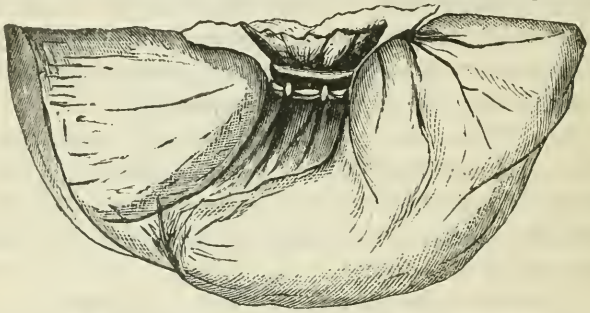
11, P.M.—Word was sent that patient was worse, as her hands were cold. Dr. Fenwick kindly accompanied me, as I feared lest hæmorrhage might be taking place. The patient was found to be warm, of good colour and perspiring freely, so that the breeze through the rooms had cooled her hands, which were however of good color. Pulse, 140; Respirations, 28; Temperature, 104.4. Has no pain Tympanites moderate. Urine nearly 4 oz. To continue chicken broth with brandy and water as she finds these agree best with her. Gave as an enema a small teaspoonful of laudanum with ess. peppermint and water.

30th, [Wednesday].—During the night she slept and waked at intervals, with mild delirium, imagining she was driving in a carriage, or that it snowed, &c. She died at 5.30 A.M., quietly, as her friends expressed it, "like the going out of a candle."

Post mortem examination 12 hours after death.

Rigor mortis well marked, Surface pale. Abdomen moderately distended with flatus. A sanious discharge could be pressed from the wound in places. Sutures still holding firmly. The whole anterior abdominal wall was reflected by two incisions; one across the lower part of the abdomen, and another at right angles to its right extremity, thus exposing the wound in the peritoneum without disturbing the sutures. The edges of the peritoneum were well and evenly brought together, although one of the sutures should have been drawn a little tighter. The edges of the wound were united throughout their entire extent, with the exception of a channel at its lower end, and small areas here and there which were moistened with a sanious fluid. The intestines were distended with gas, and the sulci and angles

between them everywhere contained firm, pale-yellow lymph. The peritoneum was not congested. There was a small quantity [4 oz.] of reddish-grey, semi-transparent serum in the belly. On pushing aside the intestines lymph was found deposited over the peritoneum, especially in the neighbourhood of the ligated pedicle, which was resting on the brim of the pelvis, The stump in retracting had drawn the firmly tied ligature into a hollow which was so completely filled in with firm lymph, that only a part of one of the knots could be seen. Dr. Fenwick has had a wood-cut of this part prepared from a drawing by my friend Dr. Arthur A. Browne, which shows the masses of lymph raised to give a view of the ligatures. The ligature had not moved in the least degree, nor had a drop of blood passed it.



Notes of examination of tumour, by Dr. Cameron.

Tumour symmetrical in form, an elliptical space denuded of peritoneum (which has retracted) marks the line of attachment of the pedicle. No signs of adhesions. The veins running across the tumour are very large. The walls of the tumour are composed of multiple cysts, from the size of a pea to that of an orange. These small cysts in the walls are most numerous in the right half of the tumour. The walls are in some places very thin. The body of the tumour consisted of four large cysts; the two largest were on the right and were evacuated during the operation. The longest *circumference* of the tumour is $24\frac{1}{2}$ inches; the shortest $18\frac{1}{2}$ inches. The longest *diameter* is $9\frac{1}{4}$ inches. The shortest, $6\frac{1}{2}$ inches.

1. Beaver Hall Terrace.
July 23rd, 1875.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

CASES UNDER THE CARE OF DR. D. C. MACCALLUM.—Reported by JAS. C. CAMERON, M.D., House Surgeon, Montreal General Hospital.

From the numerous carefully reported cases of Dr. MacCallum's Ward Clerks, I have arranged the following brief notes :

Case 1—*Colica Pictonum.*—Reported by Mr. C. S. Stroud.

J. B., æt. 41 years, was admitted into Dr. MacCallum's wards June 4, 1875, complaining of constipation and severe abdominal pains. Patient has always been a strong healthy man of sober industrious habits ; has never worked among paints or lead. He states that for three weeks previous to admission, he has been in the habit of indulging very freely in some excellent-tasting cider, sold by a certain saloon-keeper in the Eastern part of the city. He used to take sometimes as many as fifteen glasses a day. One week after he had begun to drink the cider so freely, he complained of griping pains in the abdomen, followed shortly by nausea and loss of appetite, and by irregular alternations of fever and cold clammy perspirations. His bowels became constipated, the fœces being scanty, dry, hard and of a dark color. His gums became swollen and tender, he complained of a peculiar taste in his mouth, and was troubled with frequent epistaxis.

Upon admisssion the blue line around the edges of the gums was very well marked, the expression of countenance anxious, the skin dull, dirty and cadaverous, the abdomen considerably contracted. He suffered from pain in the back, retraction of the abdomen, and twisting or grinding pains of great severity around the navel. After the administration of several purgatives, his bowels were freely opened,

and on the 7th, he was put upon five grain doses of the Iodide of Potassium, three times daily. The symptoms gradually disappeared, so that on the 14th he was discharged from Hospital. His urine was examined by Dr. Girdwood, but no trace of lead could be discovered. Upon enquiring into the cause of the lead poisoning, it was ascertained that the cider was pumped up through a *leaden pipe*. Several of his companions who partook of the same cider complained of similar symptoms; one of them who came to visit the patient had also a well-marked blue line around the gums, but the other symtoms were not so urgent, for he had drunk much less of the cider.

Case 2—Aortic Vulvular Disease..—The notes of this case were taken by Mr. R. McDONNELL.

J. L.. æt. 40., was admitted into Dr. McCallum's wards May 30, 1875, suffering from palpitation and great dyspnoea. The patient was treated in the Autumn of 1873 by Drs. Wright and Ross for *Double Aneurism, Popliteal* in the *left* leg, and *femora-popliteal* in the *right*. After the failure of Digital Compression and Flexion, instrumental compression was tried as a *dernier resort;* Carte's and Skey's tourniquets were applied and the man instructed how to manage them himself. Eventually the instrumental compression was successful and both aneurisms were completely cured. The full report of the case can be seen in the number of the CANADA MEDICAL AND SURGICAL JOURNAL for January, 1874. Since he was discharged from the hospital in 1874 he has been employed in a warehouse. Soon after commencing work he began to feel severe, paroxysmal pains in the lumbar region, accompanied by unusual pulsation of the arteries, especially the Abdominal Aorta. Severe cramp and spasmodic contraction of the lower extremities were occasionally felt. During the winter he was unable to do any hard work, or to remain out of doors on a very cold day. His appetite has been decreasing, and he has lost weight rapidly. On admission his expression was anxious,

extremities livid, tongue dry and coated with a white fur. pulse, 80; hard, strong and inelastic. He complains of great dyspnoea: his most comfortable position is on the right side with the knees drawn up. The pulsations of the superficial arteries on each side of the body are quite synchronous. The heart's action is violent; the apex beat is displaced somewhat downwards and outwards. The area of cardiac dullness is increased one inch to the left side. Auscultation reveals the physical signs of obstructive and regurgitant aortic disease. At the base of the heart a loud double bellows murmur is heard; the systolic bruit being propagated up the aorta to the carotids, while the diastolic is transmitted downwards to the ensiform cartilage. This latter phenomenon is due, as was first pointed out by Dr. MacCallum, to the propagation of the sound, produced by the regurgitating blood at the patent aortic orifice down along the septum ventriculorum to the right apex.

Both murmurs can be heard somewhat indistinctly behind, at the lower angle of the left scapula. No signs of abdominal aneurism could be made out. Femoral artery at the seat of the old aneurism, feels like a hard thick cord, while the popliteal enlargement is barely perceptible. He was put on a mixture of digitalis and iron, and improved so much that he was allowed to leave the hospital on the 6th of June. About a week afterwards while working for the Corporation on Mountain street, he suddenly dropped dead. A Coroner's inquest was held, and a verdict of "Died from Disease of the Heart" was returned. The heart and the old aneurisms which would have been of such interest as pathological specimens were thus unavoidably lost to the profession.

Case 3.—*Peculiar Case of Rheumatism.*—The notes of this case were taken by Mr. W. CROTHERS.

A. G., æt. 21, laborer, was admitted on the 4th of May, complaining of slight pain in his side, and of general debility.

Upon examination no abnormal sounds were heard in the lungs. A coarse blowing systolic murmur was made out, most distinct at the left apex, and transmitted around the left side to the lower angle of the scapula and the left intervertebral groove. By palpation a very distinct thrill could be felt over the apex, synchronous with the first sound, heart's action was intensified. The pulse was 80, small and somewhat feeble. No redness, pain, swelling or tenderness on pressure, could be discovered in any of the joints. Tongue was coated with a white fur. The saliva was acid. The urine was acid and contained no albumen. Upon enquiring into his history, it was ascertained that he suffered from a mild attack of inflammatory rheumatism two years previously. Could not tell whether his heart had been affected, as he had not been attended by a medical man. The present illness had begun with a chill two days before admission, followed by slight fever and a feeling of lassitude and prostration. From the peculiar symptoms, Dr. MacCallum considered the case to be one of acute rheumatism in which the very unusual phenomenon had occurred, of the heart being affected before the joints had become swollen and painful. Upon this supposition he was ordered half dram doses of Potas. Bicarb., every four hours, and a blister was applied over the præcordial region.

After a day or two his knees became tender and swollen, and shortly afterwards his wrists. Under treatment, how-however, the pains disappeared, the secretions became alkaline, and the heart murmur softer. So that on the 15th of May he was discharged quite well. No murmur being perceptible.

During Dr. MacCalum's quarter there have been a great many cases of rheumatism, many of them being very severe and complicated with heart affections. The treatment that seemed to secure the most favorable results, was a combination of alkalies and blisters. At the outset pot. bicarb. was prescribed in thirty to forty grain doses every three hours, till the secretion ceased to be acid, when

iron and quinine were generally substituted for the alkalies, Digitalis being added to the iron if any heart complication existed. Locally, blisters from one to two inches in width were applied, encircling the limb a little above the painfnl joints. The relief from the blisters was most marked, the patients very frequently asking for a blister when a fresh joint was becoming painful. Fuller's alkaline wash was tried in two cases, but the results were quite unsatisfactory and blisters had finally to be resorted to. The average duration of treatment was twenty-one days, the longest being five weeks. The early exhibition of alkalies failed in many cases toward off the complications ; in two instances, although alkalies had been pushed from the outset, a severe attack of pericarditis supervened ; and in several other cases, an endocardial murmur was produced. All the cases made a good recovery.

Excision of Enlarged Glands in Axilla, By Geo. E. Fenwick, M.D. Reported by J. D. Cline, B.A., M.D., Assistant House Surgeon, Montreal General Hospital.

E. W., æt. 20, was admitted into hospital on the 26th of June, under the care of Dr. Fenwick. She was a well made healthy-looking country girl. Says she was never considered delicate. Family history good. About two years ago the lymphatic glands in the left axilla began to to enlarge without, however, any deterioration to her general health. There is no history nor suspicion of syphilitic taint. Lately these glandular tumors were becoming so large as to interfere with the usefulness of the left arm.—There was no pain in them. On her admission into Hospital, Dr. Fenwick observed that he did not believe that constitutional treatment would have any marked effect in reducing the size of these glands or occasioning their absorption. That these tumours were usually met with in young women, and that if left alone they sometimes grew to a large size. In this case several of the glands were enlarged and could

with ease be removed by enucleation ; they were perfectly free having no firm attachments, and that he considered it advisable to remove them without delay. The glands in the right axilla were larger than usual in that region, but there was no evidence of general glandular enlargement.

On the 28th of June, the patient was put upon the operating table and chloroform administered. An incision about four inches long was made down the centre of the axillary space. The operator as he came to each enlarged gland seized it, and cutting through the cellular tissue as far as the investment of the gland, readily enucleated it. Fourteen in all were removed, varying in size from that of a large bean to that of a turkey's egg. There was no hæmorrhage. The wound was closed by a continuous suture of carbolized catgut and through the opening at the lower part of the wound a piece of drainage tube was left protruding, being retained in its place by a strip of adhesive plaster. The night after the operation there was a little fever, the temperature rising to about 100°, this disappeared next day, after which there was no further constitutional disturbance. The whole incision healed by primary union except the lower part through which the drainage-tube protruded. This was gradually pushed out by granulation of the deep part of the wound, and in six days the girl was sent home having only a superficial granulating spot at the lower end of the wound. The dressing throughout was a very dilute solution of carbolic acid. The catgut suture was not removed at all. It produced no irritation whatever.

Wound opening the Knee-joint. Successful Result. Under care of Dr. FENWICK. Reported by J. D. CLINE, B.A., M.D., Assistant House-Surgeon, Montreal General Hospital.

Wounds opening into the joints are generally of sufficient gravity to give the practical surgeon much uneasiness as to the ultimate result. When a larger and important joint is opened there is great danger of loss of the limb if not of the life of the patient through the constitutional disturbance

which frequently follows. Accidents of this nature occuring to an adult are almost invariably destructive in their tendency. Occasionally in children and young adults injuries to large joints, in which their cavity has been laid open have been recovered from. This favourable result may however be regarded as exceptional. Accidents of this nature are fortunately not often met with and the importance of the subject is such as to warrant the publication of the following case.

G. C. act. 14 was admitted into hospital on the 24th of June. Three weeks before this while standing near a man who was using an axe, the handle of the axe broke and the axe hitting him on the outside of the right knee made a cut about three inches long under the patella laying open the joint. The edges of the wound were stitched together and dressed with plaister. The wound healed in a week when he went about, the leg being stiff but not painful. After he had been going about for a week, on Saturday night he had a very severe chill and next morning the joint was very painful and much swollen. A poultice was applied and on Monday morning the wound opened again. On the following Thursday, the 24th of June, he came into the city to the hospital. The condition of the joint at this time was as follows :—It was swollen, hot and painful : on the outside of the joint was a wound two inches long, part of it being united, through which drained away a copious discharge of purulent synovia which became coagulated around the edges of the wound. Through the centre of this a probe could be passed into the joint.

The limb was immediately put on a MacIntyre splint, and linseed poultice applied. The discharge was very profuse for some days, but in a week it became much less, and the pain disappeared. Now the poultice was changed for a simple dressing of carbolic lotion. The discharge changed in character and became more like natural synovia and in two days it ceased entirely.

July 15th. The patient has been now three weeks in hospital and the condition of the joint is as follows :—

The external wound is almost healed ; there is no pain ; patient can move the joint without pain ; there is no roughness on movement of the leg ; the patella is moveable yet when moved it communicates the sensation of thickening of the synovial membrane ; there is visible and palpaple enlargement of the whole joint. The joint is still fixed on the splint.

July 24th. The splint was to-day removed and a glue bandage substituted. The boy could flex the leg almost perfectly. He is now going about with the bandage. He can bear the weight of his body on the right heel and has no pain whatever in the joint.

Primary Hunterian Sore on lower eyelid, under care of Geo. E. Fenwick, M.D. Reported by J. D. Cline, B.A., M.D., Assistant House Surgeon, M. G. H.

N. M., a Dane, æt. 44, was admitted into Hosipital on the 7th of July. His right eye and cheek were very much inflamed, and on the palpebral margen of the lower lid was a sore about the size of a split bean, with prominent edges, and well marked cartilaginous induration of the edges and base. There was a similar sore at the inner canthus. His eye had been sore he said for three weeks. He attributed it to exposure to sun and wind. The patient had been a farm labourer. There was a large indurated gland at the angle of the face, and a chain of simaller ones down the right side of the neck, below the mastoid process.

On his admission there was applied to the side of his face lead lotion, which removed the erysipelatous readness of the cheek ; but the sores were spreading.

July 9th. Touched the sores with strong nitric acid.

July 12th. As the sores did not tend to heal, Dr. Fenwick put him on constitutional treatment, odering :

℞ Hyd. Bichlor. gr. i. ; Potass Iod. ʒ i. ; Ext. Sarzæ fld. ℥ i. ; Aquæ ad. ℥ vi.

Of which a tablespoonful was taken three times a day. On the same day the sores were again cauterized with nitric acid.

From this day the sores began to improve, and by the 24th the large sore was reduced to the size of half a split pea; the induration was disappearing, and also the enlargement of the glands. As the man was anxious to return to work he was discharged but ordered to continue the medicine. It was impossible to ascertain what had been the direct source of contagion. I omitted to remark that he had no sore anywhere else on his body. He had been sleeping with a fellow labourer, a young man, and using the same towels, but he did not know whether this young man was diseased or not, He had never suffered from anything of the kind before the present sore made its appearance.

From the peculiar nature of the sore, its firm hard cartilaginous base, the scanty secretion, absenee of pain and the induration of the lymphatics at the back of the neck; and furthermore its rapid improvement, under constitutional treatment, their can be no doubt that the case, however singular its situation, is one of primary syphilitie origin.

Reviews and Notices of Books.

Compendium of Childrens' Diseases; A Handbook for Practitioners and Students; by Dr. JOHANN, STEINER. Translated from the second German edition by LAWSON TAIT, F.R.C.S.—8vo. pp. 403: New York, D. APPLETON & Co.

The rapidity with which the first edition of this admirable work was exhausted testifies to the estimation in which it was held by the profession generally. In Germany a second edition was called for, and Mr. Lawson Tait has embodied in his translation the additions and corrections which appeared in the revised edition.

The first division of the book, treats of the investigation

of disease in infants and young children, and is systematic and practical.

The second division is concerned with diseases of the nervous system, and this extensive subject is treated of concisely and clearly.

In the subsequent divisions are taken up the diseases of the organs of respiration, circulation, and digestion ; of the urinary and sexual organs ; general diseases of nutrition, zymotic diseases, and diseases of the skin.

The chapter upon diseases of the nervous system and digestion, are very good, and before treating of the diseases of the digestive organs, the author makes some prelimiuary observations upon the nourishment of children.

In Epilepsy, in those cases in which the cause cannot be discovered and removed, a favourable result from the administration of any drug can scarcely be expected.—He has tried atropine in these cases but without anv good effect, and he considers it, even in minute doses, an unsafe remedy for children.—Potassium Bromide has given negative results in his hands, except weakening and diminishing the paroxysms in some cases, after large doses had been given and a degree of saturation of the system attained. It has never effected a permanent cure in his experience..

In exudative croup, tracheotomy is advocated, and, according to the statistics of the operation at the Children's Hospital at Prague, 34-6 per cent. of these cases have been saved by this means. — Mr. Lawson Tait, gives some valuable directions for the after treatment of cases of tracheotomy, drawn from his own large and varied experience.

The chapter upon diseases of the urinary and sexual organs is very complete, and carefully written, as are also the remaining chapters on general diseases of nutrition zymotic diseases, and diseases of the skin.

At the end of the book is an Appendix containing rules for the management of infants, which have been issued by the staff of the Birmingham sick children's Hospital, and

which we could wish that every mother in our land not only knew by heart but faithfully carried out.

We are sure that this book will be found a very useful one by many practitioners; it is written in a concise and clear style, its only defect to our mind being a profusion of *sesquipedalia verba*.—The translator has done his work faithfully and efficiently, and Messrs Appleton have presented it to the profession on this side of the water in a creditable form, although unfortunately there are some typographical errors, and at the foot of page 402 we are suddenly lost, the paragraph as it stands, being unfinished. Have we received by error an incomplete copy of the book?

Periscopic Department.

SURGERY.

An Inquiry into the Condition of Fifty-one cases of Lithotrity in Elderly Adults, Made at Periods of One or Two Years After Operation. By Sir HENRY THOMPSON, Surgeon Extraordinary to H. M. the King of the Belgians; Emeritus Professor of Clinical Surgery in University College; Late Surgeon to the Hospital.

In the Lancet of April 3rd I reported the results of my last 100 stone operations (lithotomy and lithotrity) on adult patients averaging $63\frac{1}{2}$ years of age, amongst whom there were 6 deaths, and consequently 94 recoveries. Mr. Thomas Smith made an enquiry in the following number of the journal relative to the condition of the patients on whom *lithotrity* had been performed, at any period not less than twelve months after the procedure, with the view of ascertaining whether the results of that operation were permanent. Such an investigation I thought desirable, and promised to make it; for although the general results must be well known to myself, I had never applied an exact or numerical test in order to determine them.

I have therefore sought, by writing and personal inter-

views, to obtain information of the present state in all those cases of this series in which the operation of lithotrity was performed more than twelve months ago—that is between December, 1872, when it commenced, and May, 1874. Consequently the time after operation is much longer than that which Mr. Smith suggested, for while the last case was treated fully twelve months ago, more than two years and a quarter have passed since the first of the series was operated on.

I find that between the dates named—a period of about seventeen months—I performed lithotrity on 53 patients, of whom two died, leaving 51 cases of recovery. The mean interval betwen the date of operation and the present report of condition, for these 51 cases which are the subject of inquiry, is, therefore, about twenty months instead of "one year." An examination of these cases, given in a tabular form below, shows that respecting six patients I have been unable to obtain the information required; but the weight of such evidence as exists relative to these is greatly in favour of their being better and not worse than the average, since their mean age is only fifty-four years, nearly ten less than the mean of the whole series. As I am compelled to omit these from my reckoning, I believe that my report is less favourable to lithotrity than it ought to be.

The number of individuals, then, of whom I have precise information is 45, averaging about sixty-four years of age Of these, 11 have since died. The causes, certified by their medical attendants were—2 of organic heart disease; 1 of malignant disease; 1, at eighty, of natural decay; the other 6 of urinary disorders and advanced age together (the mean age being sixty-six years). All but one of these latter were individuals who for several years had passed no urine except by catheter, who owed their lives solely to surgical art, and who without it must have died miserably some years before. The prolongation of life had been entirely due to the improved modern means of mechanically removing retained urine and accumulated phosphatic deposits. Of the 45, 34

are living still; 28 of them enjoying good health and active existence, at a mean of sixty-three and a half years of age. The other 6 have some signs of recurring calculus, 2 having had a newly formed calculus removed; all are well but one of these, who is in bad health and suffers much.

I think I may leave these figures to speak for themselves. I shall make one observation, however, which, although a very natural one, does appear not to receive the consideration which I think it deserves. Supposing that these 53 cases of lithotrity (including 2 deaths with 51 recoveries) had been cut instead of crushed, how many fatal cases would have followed the operation? Their average age being sixty-three, 14 deaths would not have been a bad result, somewhat better than published tables offer us.* But after these operations, mainly done in 1873, only 11 deaths have since occurred *up to the present date.* And even if we were to reckon all these as deaths resulting from the operation, although as may be seen below, they were quite unconnected with it, we still should have a total of recoveries larger than after lithotomy. There is, however, much reason to believe that the few examples of chronic cystitis with recurring phosphatic deposits, subsequent to lithotrity, occur generally in those feeble and diseased persons to whom lithotomy is most commonly fatal. The fact is, that almost all those patients whose subsequent troubles remain, and who to superficial observers, appear to discredit lithotrity, do in reality owe their existence to the operation, and are trophies of life absolutely saved by it.

Thus it is that lithotrity, as I have observed, has created a new set of cases—men who, until the process was brought pretty nearly to its present perfection, never lived. Respecting them I should like to write the results of my experience, and hope ere long to do so. They are men whom lithotrity keeps alive—who, thanks to the ease and safety

* I may refer to my own table of 1827 cases, collected with great care, among others, as supporting this view. "Lithotomy and Lithotrity," 2nd edit., p. 142.

with which a small and newly formed phosphatic calculus can be crushed, go on for years to live and even to be active. These cases have to be kept apart from other cases of stone, because it would invalidate any inference from numerical statements were a surgeon to reckon as a "case of lithotrity' each time, perhaps twice a year or more, he removed a calculus from such a patient, although it might not always necessarily be very small. But it is not to be forgotten that before the time of lithotrity there was no adequate help for such a patient except by the cutting operation, and many such died miserably with bladders filled with phosphatic material.

I am very glad to have made this inquiry, although it has entailed no little pains and labour; since I venture to hope that it may prove to be, not merely a new, but also a useful contribution to our knowledge respecting lithotrity.

1. A gentleman aged thirty-six; operation, Nov. 1872; uric-acid calculus. I have no knowledge of the address. He made an excellent recovery; and I should, at his age have probably heard more of him if his health had not continued good.

2. A gentleman aged seventy-five; operation, Dec. 1872; phosphatic calculus. In May, 1875, Mr. Gardner, of Gloucester-terrace, reports to me this patient in his usual health.

3. A gentleman aged sixty-nine; operation, Jan. 1873; uric-acid calculi. This patient who was under the care of Mr. Newton of Upper Wimpole-street, writes me (June, 1875): "I am in perfectly good health, and have no uneasiness or feelings that lead me to suppose I have any stone in my bladder now."

4. A gentleman aged sixty-five; operation, Jan. 1873; phosphatic calculus. Mr. J. H. Bartlett, of Notting-hill, writes me that this patient had no further symptoms of calculus, and that he died of heart disease three months after.

5. A gentleman aged sixty-eight: operation, Jan. 1873. This gentleman had for many years passed all his water by catheter. His life had been prolonged, with very advanced

prostatic disease, by great care and frequent removals of phosphates as they formed. He died, his urinary organs being quite worn out, with extensive sacculation of kidneys and ureters, in December of the same year.

6. A gentleman aged fifty-one; operation, Feb. 1873; uric-acid calculus. Mr. Allen, of Milner-square, Islington, writes me (May, 1875) that this patient is perfectly well.

7. A gentleman aged thirty-six; operation, Feb. 1873; uric-acid calculus. No return, and is perfectly free from symptoms at present.

8. A gentleman aged sixty-four; operation, Feb. 1873; phosphatic calculus. This patient had always passed all his urine by catheter. He had no return of his stone. He became insane, and used the instrument very carelessly. In January, 1875, I was called to see him with severe extravasation of urine, resulting from injury, of which he shortly after died. I saw him with my friend Dr. Murchison.

9. A gentleman aged sixty; operation, Feb.–March, 1873; phosphatic calculus. I heard from this gentleman a few days ago (May 1875). He is in excellent health, and is leading a very active life.

10. A gentleman aged sixty; operation, March, 1873; uric-acid calculus. Dr. Manson, of Chesterfield, writes me (June, 1875) that this patient "remained quite free from any symptoms of recurrent calculus to the day of his death, which resulted from typhoid fever in December, 1873. He was perfectly satisfied with the result of the operation."

11. W. C——, aged sixty-seven; operation, March, 1873; uric acid; treated at University College Hospital. For many years he has passed small uric-acid calculi; and, having recently had one in his bladder which he was unable to expel, it has been successfully crushed for him in the country.

12. A gentleman aged seventy-one; operation, April, 1873. Writes me (May, 1875) that he continues quite well.

13. A gentleman aged sixty-seven; operation, April, 1873; uric acid. Recently seen by myself, he is perform-

ing his duty as a member of Parliament, and enjoys excellent health and strength.

14. A gentleman aged sixty-one; operation, April, 1873. I have just seen him. He is in perfect condition as regards his bladder. His stone was a large uric-acid formation. His medical attendant, Mr. Leppington, of Great Grimsby, writes me that "he has had no symptoms of any return of vesical mischief."

15. A gentleman aged fifty-nine; operation, April, 1873; oxalate-of-lime calculus. He was quite well six months ago, but I have not got his address, and have failed to find him.

16. A gentleman aged seventy-nine; operation, April, 1873; uric acid. Had no return of his calculus, and died about a year afterwards of some other malady, apparently from natural decay.

17. W. B. H.——Aged sixty-three; operation, May, 1873; uric acid. Treated in UniversityCollege Hospital successfully, and his present address and condition are unknown.

18. A gentleman aged sixty-seven; operation, May-June, 1873; large phosphatic stone. Writes me, (May, 1875,) that he is perfectly well, and better in health than for many years.

19. A gentleman aged sixty; operation, May-June, 1873; large uric-acid calculus. Dr. Evan Jones, of Aberdare, writes to inform me that the patient had rigors in September, and signs of blood-poisoning; no abscesses; and died comatose Oct. 23rd. He had left me in fair condition at the end of June, with some suspicion that the kidneys were not sound.

20. J. W. ——(University College Hospital,) aged fifty-four; operation, June, 1873; phosphatic calculus. Has long passed all his urine by catheter. Having just written to ask how he goes on, he replies that he was quite well for a long time after operation, but he begins to have signs of some phosphatic formation and wishes soon to be examined.

21. J. W.——,aged thirty-six; operation, June, 1873;

uric-acid calculus. Treated successfully in University College Hospital, and his present address and condition are unknown.

22. A gentleman from the Brazils, aged fifty-six; operation, June and July, 1873, very large phosphatic calculus. One of the most formidable cases I ever had. He made a most excellent recovery, always, as before the operation, passing all his urine by catheter. He came to me last summer (two years after operation), and I removed a small phosphatic formation which had been developed, and he left me as well as ever.

23. A gentleman aged forty-one; operation, July, 1873. I have just seen this patient; he has enjoyed fair health, and has had no return of his malady. The stone was originally oxalate of lime, and he is subject to irritation in the urinary passages and occasionally to orchitis. He leads an active life.

24. A gentleman aged seventy-seven; operation, July, 1873; uric-acid calculus. In excellent health for his age. No return of his malady. Uses a catheter twice a day, and is under the care of Dr. Jackson of Southsea.

25 A gentleman aged sixty-two; operation, Oct. 1873; phosphatic calculus. Had long passed all his urine by catheter and at short intervals. I removed a phosphatic calculus of considerable size, the result of constant cystitis; but he died exhausted from incessant catheterism about a year after.

26. A gentleman aged sixty-five; operation, Aug. 1873; uric-acid calculus. Seen again in the latter part of the year. Recovery perfect, but have not the address, and cannot learn any later particulars.

27. An American gentleman, aged sixty seven; operation, Aug. 1873; phosphatic calculus. He wrote to me in the following year that there was no return whatever of his complaint.

28. A gentleman aged sixty; operation, Aug. 1873; large uric-acid calculus. I cannot learn anything of this patient.

29. A gentleman aged seventy-seven; operation, Aug. 1873; uric-acid calculus. I have just seen this patient, (June, 1875). He has had no return whatever of calculus symptoms, and is passing his catheter three times in the twenty-four hours on account of inability to empty his bladder from enlarged prostate. He is enjoying excellent health.

30. A gentleman aged sixty-seven; operation, Aug. 1873; uric-acid calculus. This patient has not been much relieved. He passes his urine chiefly, if not altogether, by catheter, and, in spite of all treatment, phosphatic matter forms and must be removed.

31. A gentleman aged fifty-six; operation, Nov. 1873; a phosphatic calculus. He had no return of it. Mr. Pearson, of Manchester, writes me that he died of malignant disease in January last.

32. A gentleman aged seventy-eight; operation, Nov. 1873; uric-acid calculus. His medical attendant, Mr. Hicks, of Easingwold, writes me (June, 1875); "The patient has been perfectly free from vesical troubles ever since."

33. A gentleman aged seventy-six; operation, Nov. 1873; uric-acid calculus. Have just seen him, (May 1875); he has had no return whatever of his complaint.

34. A gentleman aged seventy-two; operation, Nov. 1873; oxalate of lime. I saw this patient a month ago (May, 1875). He is in perfect health, and has had no return whatever of his complaint.

35. A gentleman aged sixty-three; operation, Nov. 1873; uric-acid calculus. His medical attendant, Mr. Robert Parker, of Malpas, Cheshire, has just written me (June, 1875), that this patient is "feeling as well as ever he did in his life."

36. A gentleman aged seventy; operation, Dec, 1873; He made a most excellent recovery; left me a hale and hearty man, and I have no doubt is quite well, but I have no clue to his address I believe he is living in Dundee or its neighbourhood.

37. A gamekeeper at Balmoral, aged sixty-one ; operation, Dec. 1873 ; a phosphatic calculus. He has just written me (May) that he "is keeping well and able for his duty."

38. A gentleman aged sixty-four ; operation, Jan. 1874 ; a large phosphatic stone. Seen with Dr. Holman, of Reigate. Had not emptied his bladder some time before operation. Still uses his catheter. In good health, and has no return of his malady.

39. A gentleman aged sixty : operation, Feb. 1874. This was a uric-acid stone of unusual size, and the difficulties were remarkable. I saw the case constantly with Mr. Blaker of Brighton. He had long-continued troubles afterwards from inability to pass urine by his own efforts and frequent catheterism. He has slowly improved, and is now in a comfortable condition, with no return of stone formation.

40. A gentleman aged sixty-one ; operation, Feb. 1874 ; a uric-acid stone. I have lost sight of him, and cannot learn his address.

41. A gentleman aged seventy ; operation, Feb. 1874. A uric-acid stone, complicated with advanced disease of the bladder. The former was easily removed, but no improvement took place, and he died of the latter about six months after.

42. A gentleman aged sixty-two ; operation, Feb. 1874 ; a uric-acid stone. Called on me May, 1875. In excellent health ; no reappearance of stone symptoms. Occasionally under the care of Dr. Macdonald, physician to the Duke of Argyll.

43. A gentleman aged sixty-seven ; operation, Feb. 1874. Died suddenly of mitral disease about ten days after the stone, mixed oxalates and urates, was successfully removed.

44. A gentleman aged seventy-eight ; operation, March, 1874 : phosphatic calculus. Has many years passed all his urine by catheter, and had had a stone removed in 1870 ;

the second in 1874, after which he lived about five months.

45. A gentleman aged sixty-six; operation, march, 1874; very large uric-acid calculus. This gentleman has just written me (June 1875): "I am well pleased to inform you that I have been very well indeed until the latter end of March." He adds that he has lately had a little irritability of the bladder, which has passed off.

46. A gentleman aged seventy-two; operation, March, 1874; uric-acid calculus. Seen with Mr. Sibley, of New Burlington-street. Is now (June, 1875) in perfect health; no sign of his malady remaining.

47. A gentleman aged fifty; operation, March, 1874; a uric-acid stone. Has been in excellent health since. In January last he passed a small uric-acid calculus per urethram. He is now living at Antwerp, and is quite well.

48. A gentleman aged sixty-five; operation, April, 1874; a phosphatic calculus. This patient had for many years passed all his water by catheter, frequently doing so as often as twelve to fifteen times in the twenty-four hours. He has been quite well until lately, and has just called (June, 1875) to inform me that symptoms have reappeared. I find a re-formation of phosphatic matter, which I shall have to break up and wash out. Otherwise his health is excellent.

49. A gentleman aged sixty; operation, April-May, 1874; uric-acid calculus. He called on me in February last, in excellent health, and without any symptoms of his old complaint, and walking several miles daily.

50. A gentleman aged sixty-eight; operation, May, 1874; large uric-acid stone. Dr. Lambert. of Sunderland, writes [June, 1875) his "condition at the present time is perfectly satisfactory."

51. A gentleman aged sixty-one; operation, May, 1874; uric-acid calculus. Dr. Helsham, of Brixton-road, writes, in May, 1875, that this patient is travelling on the Continent in perfect health.—*The Lancet.*

Annandale on Knock-knee.

In the *Edinburgh Medical Journal,* July, Mr. Annandale describes a new operation for the cure of knock-knee as follows. On the 3rd of March last, a little girl aged six, was brought to me from Glasgow, on account of a serious deformity of her right leg. Mechanical means had been employed for two years with the object of relieving the condition, but without success, and the deformity was steadily increasing in severity.

A careful examination determined an aggravated form of knock-knee, and it was found impossible, in any position of the limb, to bring the leg into a straight line with the thigh, the head of the tibia forming a considerable angle with the condyles of the femur. The femur had a distinct bend inwards and forwards about the junction of its lower and middle thirds, and the condyles of this bone were much more oblique in their direction than in the natural condition.

The adductor muscles were somewhat contracted, and the distortion was such that the patient walked with difficulty. The left limb was well developed and natural in position. A study of the case convinced me that the oblique position of the condyles, the result apparently of the bending of the shaft of the femur, was the principal obstacle which was preventing the tibia and leg being brought into a line with the thigh, and it therefore seemed to me, that if this obliquity could be removed, the deformity might be cured or very much relieved.

Two ways of removing this obliquity suggested themselves. The first was to divide the shaft of the femur at the point where bent ; the second to remove an oblique slice of the condyles. The latter operation would be attended with more risk than the former, because it necessitated the incision of the knee-joint. But some little observation decided me to adopt the latter proceeding, for I felt sure that it would be more effectual than the former, and I trusted that the risks of opening into the joint would be counteracted by the careful use of the antiseptic treatment.

The consent of the child's parents having been obtained, I operated on March 16 in the following way.

An incision, about five inches in length, was made along the inner aspect of the knee-joint, the articulation opened into, the internal lateral ligament cut across, and the patella and its ligament being drawn outwards, the crucial and external lateral ligaments were also divided. An oblique slice was then sawn off from the condyles of the femur, the tibia not being interfered with. After the removal of this slice of bone the leg was readily brought into a straight line with the thigh ; and a drainage tube being inserted into the cavity of the joint, a few sutures were applied, and the limb placed on a wire splint, in the straight position. The whole operation was performed under the antiseptic spray, and the usual antiseptic dressing was applied to the wound.

Some suppuration of the wound followed the operation, but this gradually ceased, and on March 24 the discharge was so slight that the dressing was changed only once in two days. On April 25 the wound was quite superficial, and on the 29th of this month, the wound was soundly healed. On May 6 the patient was allowed to get out of bed, the joint being supported by lateral splints, which were removed daily to permit of passive movements of the joint being made. On May 30 the splints were entirely removed and the patient allowed to bear weight on the limb. At this date the limb was perfectly straight, and of equal length with the opposite one. The lateral mobility of the joint was very slight, and very much as in the natural condition. Flexion and extension were very limited.

On June 5 I placed the patient under chloroform, and forcibly bent the knee to rather more than a right angle, and I also moved the joint freely, so as to break down the adhesions which had resulted from the operation. No bad consequence followed this forcible bending of the knee ; and two days after the patient was again going about the ward with the help of crutches, and able to bear weight upon the limb, the mobility of the joint being decidedly improved.

Remarks.—I am not aware that this or any similar operation has been before practised in case of knock-knee, but the successful result obtained in the case reported encourages me to recommend this method of operating in certain aggravated cases of the deformity which have resisted the division of the biceps, tendons, or other tense structures, and carefully applied mechanical treatment.

The employment of the antiseptic treatment in this and similar operations I consider most valuable, and I must confess that it was my confidence in this treatment which led me to freely incise so important a joint, and to carry out the proceeding described.—*The London Medical Record.*

MIDWIFERY.

Case of Sterility from Anteflexion of the uterus, and constriction of the Internal Os Uteri, Cured—By Heywood Smith, M. A., M. D., Physician to the Hospital for Women and British Lying-in Hospital.

Of all the causes of sterility depending on malposition of the uterus, that of anteflexion is the most frequent. Other malpositions of the uterus, except marked retroversion, leaves the cervix uteri depending into the posterior original *cul-de-sac* in the dorsal decubitus ; but in acute (I here use the word acute with regard to the angle, not time) anteflexion, the os uteri is lifted out of the posterior *cul-de-sac,* and placed in a position unfavourable for the imbibition of the semen. Anteflexion, dysmenorrhœa, and sterility, are three conditions so frequently associated, that, when a patient comes complaining of dysmenorrhœa, and is also barren, a vaginal examination more often reveals anteflexion than any other condition. And here it may be noticed that it is the dysmenorrnœa that causes the patient to seek for advice. Among the applications for relief at hospitals, pain is that for which medical advice is generally sought, seldom barrenness. The latter is either considered a blessing, or women give themselves up to their fate, never

for a moment supposing that such a condition is remediable; whereas among the upper classes, when property or name are at stake, medical men are more frequently consulted for relief from barrenness ; and in such cases, pain not necessarily being an element of complaint, the sterility may be found to depend on many causes other than flexion. It is therefore, perhaps, more among the poorer classes that favourable results, as far as sterility is concerned, may be looked for from operation and treatment for the cure of anteflexion, and for the relief of obstructive dysmenorrhœa.

E. S., aged 29, married six years, became an out-patient at the Hospital for Women, February 20th, 1871. The catamenia commenced at the age of 18 ; they were regular, with some pain generally before the flow. The passage of the thick sound before the period lessened the pain. She was admitted into the hospital on July 3rd, 1871. The uterus was normal in size ; a thick sound could be passed after some gradual pressure, and the constriction held the sound rather firmly. On July 13th, Dr. Protheroe Smith's uterine dilator was used to half an inch. On the 17th, the dilator was used to three-fourths of an inch, and the constriction at the internal os divided bilaterally with a straight knife, as well as the external os slightly, and a spring metallic (Greenhalgh's) stem introduced. On the 19th, the stem was extended half its length, with some forcing pains, and was replaced. On the 23rd, the patient was free from pain. A slight blood-stained discharge continued. On the 26th the stem was removed ; and on July 31st, the patient was discharged.

In April of the following year (1872), she was seen again. The external os was divided a little more freely, and the spring stem again introduced. It remained in altogether nearly three weeks. The patient continued under observation from that time, the thick sound being occasionally passed until conception took place, after the catamenia of November 13th, 1873 ; and she was delivered of a living female child on August 31st, 1874.

The above case is given in order to encourage practitioners not to lose sight of a case after operation for dilatation of stricture of the internal os, because pregnancy does not immediately follow, but to persevere, by the occasional passage of the thick sound, to maintain the cervical canal in a state of sufficient patency.

Moreover, it often happens that, for some time after forcible dilatation, there may exist some chronic irritation of the cervical mucous membrane with or without granular inflammation of the labia uteri, which, giving rise to leucorrhœa, of some form or other, may hinder impregnation. And here it may be well to insist on the necessity of not trusting to dilatation alone, whether by tents or by the introduction of graduated sounds, to enlarge the cervical canal. For if dilatation alone be had recourse to, its action is only temporary, for the uterine fibres are thereby merely stretched, as India-rubber might be, and, on the stretching force being intermitted, the cervix returns to its usual condition.

The dilatation must be associated with, and made subsequent to, incision of the canal. After incision of the cervical canal from within, which need not be extensive, dilatation then continues the incision with a slight rupture, and, this being kept from closing, the dilatation remains permanent. Many failures of this treatment are due to the external os being too freely divided, and being thereby rendered too patent; the act of imbibition is greatly interfered with, if not altogether prevented. The object to be gained is slightly to enlarge the cervical canal, and, at the same time, not to destroy the orifice of the uterus.—*British Medical Journal.*

The profession throughout the country will be glad to hear that Dr. Bovell, for many years one of the leading consulting physicians in Toronto has returned from the West Indies, where he has been for the last four years.

CANADA

Medical and Surgical Journal.

MONTREAL, AUGUST, 1875.

DRUGGISTS PRESCRIBING AND THE SALE OF POISONS.

In the act of amendment, to the act of incorporation of the Pharmaceutical Association of the Province of Quebec, there exists a most stringent clause against the sale of poisons except on the prescription of a physician.

The provisions of that clause are comprehensive, it is sufficiently indicated that "poison is not to be sold" to a person unknown to the seller; unless introduced by a person known to the seller; and on every such sale of every such article, the seller shall before delivery, make or cause to be made an entry in a book to be kept for that purpose, stating in the form set forth in schedule B., of this act, the date of the sale, the name and address of the purchaser, the name and quantity of the article sold, and the purpose for which it is stated by the purchaser to be required, and to which the signature of the purchaser, and of the person if any who introduced him shall be affixed." Then follows a list of poisons which are prohibited to be sold.

We notice that Chloral Hydrate is not down in the list referred to and we think the omission should engage the attention of the Legislature at its next session with a view of amending this clause; making it more definite and including some dangerous drugs which are not to be found in the list of poisons. This is a subject which should engage the attention of the Pharmaceutical Association itself

as it is in the interest of public safety that members of that association should not take upon themselves to prescribe and dispense drugs of this character without a physician's prescription.

Recently a medical man was called to see a patient of his who was profoundly under the influence of a large dose of chloral, upon inquiry he ascertained that a druggist in this city, had taken upon himself to prescribe and dispense a large bottle of solution of chloral hydrate, the patient took a dose and feeling himself dizzy, took a second and this was followed shortly after by a third, fortunately the man had a profound sleep of several hours duration, and then recovered. We say fortunately, because no disaster followed, had the man died, a coroner's jury could hardly have brought in a verdict other, than one of manslaughter against the druggist for his reckless neglect of the spirit of the Pharmaceutical act. This is no isolated case of breach of the spirit of that act. Quite recently we were called upon to assist a confrere in removing from the stomach of a man by aid of the stomach pump the contents of an ounce bottle of Chlorodyne. It is difficult to determine the precise quantity of morphia contained in an ounce of Chlorodyne, but from its effects, and by general consent, it is believed to be at least of the same potency as laudanum, and therefore it is as dangerous a drug to use indiscriminately as is the tincture of opium. We are cognizant of several cases of opium eaters who have abandoned the use of the article itself and taken kindly to Chlorodyne. It seem to supply for a time at least that distressing craving for the accustomed stimulus which is experienced by those addicted to this wretched indulgence. Here is a strong argument against the sale of patent drugs which are known to contain poison, except in quantities which can not possibly take life. We believe that in the case above referred to, had the patient been left to himself, life would shortly have ceased, the first washings of the stomach not only filled the air of the room with the odour of Chlorodyne, but the water itself

was quite discoloured, and after allowing it to stand, the heavier particles of the Chlorodyne settled to the bottom of the basin in which it was collected.

While on this subject we cannot refrain from mentioning another case of somewhat different character. A young robust man, a laborer, called on a druggist, who is regarded by the common people to be a doctor and is so styled, and complained of having a severe cold with cough. The druggist without knowing what lesion in verity existed, prescribed and dispensed a cough mixture which was to put him all to rights in a few days. The man faithfully took the remedy, became worse and ultimately was brought to the Montreal General Hospital where he died six hours after his admission. A Coroner's inquest was held, and after some difficulty the House Surgeon obtained the consent of the jury to open the body, and ascertain the cause of death. On examination he found that the man had suffered from pneumonia,and that his lungs were in the first stage of consolidation. The investigation ended in a verdict of death by the visitation of God, and not as it should have been, of gross neglect on the part of the poor fellow to obtain efficient aid in his extremity, and of censure or a verdict of manslaughter against the druggist for daring to trifle with human life in prescribing for and misleading a fellow mortal to his own destruction. Many other similar cases we could mention, where temerity on the part of druggists has been followed by death to the victim. This is not pleasant to record, nor is it pleasant to contemplate. The practice of medicine is a most serious and responsible undertaking for a man whose duty it becomes, he is dealing with human life, and if through neglect or ignorance a life is sacrificed he will be held accountable by his Maker. Coroner's inquests in this district have become a by-word of mockery of judicial inquiry. A case occurred quite recently, of a man who died suddenly ; it was known that he was suffering from thoracic aneurism, because shortly before death he had been an inmate in the Montreal General Hospital, and his condition

had been made out by the attending Physician. An inquest was held and the verdict of the jury, suggested we suppose by the Coroner, was death from Apoplexy.

THE CANADIAN MEDICAL ASSOCIATION.

Before this number of the journal reaches our subscribers the Canadian Medical Association will have met at Halifax Nova Scotia to hold its eighth annual meeting. Hitherto little has been done by this association with a view of placing the Canadian profession in a proper light as a scientific body before the world. We expect much good will ultimately result from these meetings although from lack of a proper system of organization very little has so far been done By a proper system of organization we do not desire to throw any slur on the association, but think that if the British system were adopted, of establishing branch Associations throughout the country that real and valuable work would be done at these annual gatherings. There are many subjects which will we doubt not receive due consideration.

Vital statistics will we believe form a part of the programme but without a uniform system of governmental registration it will be difficult to arrive at anything like truthful results. Registration to be effective must be enforced and carried out by officials appointed bythe Crown. Such has been the experience of every country in the world, and we in Canada need not expect to receive reliable information on this subject so long as the present system is permitted to continue. The Roman Catholic Church is averse to a secular system of registration, because it holds that if permitted to be carried out by civil enactment the church would lose that hold over the consciences of the faithful which acts as a barrier to civil marriages, and neglect of baptism. Such are the arguments which we have heard advanced. We can only say that if the votaries of the church are alone held to their duty by

compulsion the sooner they are out of it the better. No true son of the church will neglect the teachings of that church in matters of faith. Nevertheless as a society of men we cannot ignore the fact that marriage is a civil institution, however desirable it may be that it should be sanctioned and consecrated by a religious ceremony.

Infant Baptism is quite another thing. The church teaches that infant baptism is essential, there are however those outside the church, whose teachings they ignore, who do not believe in the necessity of infant baptism This class throughout Canada is by no means small, and without the existence of a law compelling registration many of the children of this class do not appear at all on the register. The fact of having a registration law does not in any way interfere with the doctrines or obligations imposed by the church on the people. These are pure matters of faith and not of custom, and we cannot see that secular registration would in any way interfere with them. The Canadian Medical Association is composed of representative men of a liberal profession, most deeply interested in this subject, and we think that an earnest appeal from that body would have due weight in the councils of the Commons at Ottawa. Registration should be uniform throughout the Dominion. Furthermore from the variety of religious sects which are to be found amongst our people, no particular sect should be permitted to have anything whatever to do in carrying out a registration act. To be efficient it must be under government control.

MONTREAL PUBLIC HEALTH ASSOCIATION.

In the last number of our Journal we took occasion to notice, what we considered at the time, some ill-digested remarks of the Chairman of the Montreal Sanitary Association regarding the dirty back lanes. At a subsequent meeting the chairman is reported to have commented rather earnestly on the editorial in the Journal, saying that he

considered that these remarks were very much out of place in a medical journal. At this stage a venerable-looking old gentleman, whom we presume is anxious to bring home the responsibility of these things to particular men, asked the very pertinent question : " Who is the editor of the Medical Journal ?" Having had his curiosity satisfied he resumed his seat. The chairman then continued and wished to know what right the residents in Beaver Hall Terrace had to store their manure in the lane in rear of that terrace. To this we can only reply that these back lanes form a part of the property on which the house stands. As far as the stable manure is concerned, perhaps the President of the Montreal Sanitary Asssociation thinks that by a strong protest on the part of that Association the order of nature will be arrested, and that animals will accommodate the association by depositing no more manure. The trial is certainly worth the trouble, and may be attended with success. "Wonders will never cease." But we suppose as long as the present order of creation exists, and that animal deposits are made, they will have to be stored, for a time at least, in some convenient corner. An outsider to read the comments of the Chairman of the Montreal Sanitary Association would be led to suppose that these manure heaps were regarded by the residents as a species of luxurious smelling-bottle, and that they retain these manure heaps in spite of the pleadings of the press, the thunderings of the Sanitary Association and its chairman, and the occasional summons of Mr. Recorder, with the petty annoyance of loss of time and having to pay $1.50, the costs of an action, which is grievous, and which in any other court could not for a moment stand.

We are happy to announce that Dr. James A. Grant of Ottawa, who has been absent in Europe during the past two months, arrived by the Allans' steamship Pollynesian, on Sunday, 1st instant, very much improved in health.

THE SMALL POX HOSPITAL.

We do not wish to be considered unnecessary alarmists, but we would remind our readers that during the past four or five years small-pox has been very prevalent, lulling in the summer, to break out with greater virulence towards winter. We have heard that the city contemplate closing the small-pox hospital at the Hall house. This is all very well if another suitable place be provided. The small pox wards of the Montreal General Hospital must be removed or else the hospital will be ruined as a general hospital. It has been stated that the governing body of the Montreal General Hospital feel that in closing the small-pox wards they render themselves liable to action for damages. The reading of the 24 Vic. Cap. 24, clause 1 is that "no warrant shall hereafter issue for the payment of any sum of money granted by the Legislature to any hospital, unless nor until a certificate, signed by a medical officer of such hospital to the effect that there is in such hospital a distinct and separate ward set apart for the exclusive accommodation of patients afflicted with small-pox has been filed with the clerk of the Executive Council." Now this we take it does not oblige any hospital to keep up a distinct and separate ward for the accommodation of small-pox. An hospital may be intended exclusively for some special disease or condition. Take for instance Lying-in hospitals, of which in this city there are some three or four, this clause in the Act applies equally to them, and yet no man in his senses would counsel connecting a small-pox ward with any of these institutions. We have carefully looked into this subject and find nothing in the charter of the Montreal General Hospital which can be construed into an obligation to keep open a small-pox ward. But take the other side of the question. How would an action lie supposing the friends of a deceased person went to claim damage in consequence of their relatives having contracted small-pox which led to their death, they having in good faith entered the hospital to be treated for a slight surgical injury or trivial attack of

disease ? These are matters for the governing body of the Montreal General Hospital to carefully consider, and if instances are required wherein valuable lives have been sacrificed, and important surgical operations destroyed, in consequence of the small-pox disease spreading into the general wards, we fancy a goodly number might be produced.

LICENTIATES OF THE COLLEGE OF PHYSICIANS AND SURGEONS OF LOWER CANADA.

We notice by our English exchanges that a person named William Robert Smith of 309 Holloway road London claims to be registered in Canada as a Licentiate of the College of Physicians and Surgeons of Canada. For the information of our contemporaries we may observe that no such college exists in Canada. In Lower Canada or the present province of Quebec the profession are incorporated under the name and style of the College of Physicians and Surgeons of Lower Canada. This act of incorporation was passed in the tenth year of the reign of Her Majesty Queen Victoria. We have the honour to be the Registrar of the College and have looked over the names in the register and have failed to meet with the name of Mr. William Robert Smith. Six years ago, or in 1869, the profession in Western Canada were incorporated by the Local Legislature of Ontario under the name and style of the College of Physicians and Surgeons of Ontario. These are the only legally recognised bodies in this part of the Dominion forming Canada proper, that possess the right to grant a license *ad practicandum*. We cannot say whether Mr. Smith's name appears on the published list of the Ontario College as we are without a copy of that document.

CINCHO-QUININE.

The following card was received from Messrs. Billings, Clapp & Co. some time in March last, and was mislaid, we now give it insertion because having published, two years since, in the columns of this journal an article headed "What is Cincho-Quinine?" this card is as it were a reply to that question. We cannot speak practically of the effects of cincho quinine, never having employed it; but should suppose from its alleged composition that it would be useful and beneficial in cases where the alkaloid itself will not agree:

A CARD.

We desire to call the attention of the faculty to the following analyses of Cincho-Quinine, from some of the most eminent chemists.

BILLINGS, CLAPP & CO., Boston.

Chemical Laboratory of the University of Pennsylvania,

WEST PHILADELPHIA, January 29, 1875.

MESSRS. BILLINGS, CLAPP & CO.

GENTLEMEN,—I have received by express a package marked, "Sealed by S. P. Sharples, January. 22, 1875," and containing a bottle of Cincho-Quinine, with the label of James R. Nichole & Co.. Chemists, Boston, which have tested, and found it to contain *Quinine*, *Quinidine*, *Cinchonine*, and *C nchonidine.*

Yours respectfully, F. A. GENTH,

Professor of Chemistry and Mineralogy.

Laboratory of the University of Chicago.

CHICAGO, February 1, 1875.

I hereby certify that I have made a chemical examination of the contents a bottle of Cincho-Quinine, and by direction I made a qualitative examination for *Quinine*, *Quinidine*, and *Cinchonine*, and hereby certify that I found hese alkaloids in Cincho-Quinine.

C. GILBERT WHEELER,

Professor of Chemistry.

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

PRESIDENT'S ADDRESS.

Delivered at the Eighth Annual Meeting of the Canadian Medical Association, held in Halifax, Nova Scotia, the 4th, 5th and 6th August. 1875. By L. B. Botsford, M.D., L. R. C. S., Edin. St. John, N.B.

Gentlemen,—In the order of business it is now my duty to address you on this our eighth anniversary. With one exception the Association has held its meetings in the Provinces of Quebec and Ontario. On this occasion we have the pleasure of assembling in one of the oldest cities of the Maritime Provinces ; which with its noble harbour adorns the Atlantic coast of the Dominion. Perhaps the day is not distant when a session of this same Association will be held on that other shore where the waters of the Pacific wash its Western boundary.

Those among us whose heads are nearing their resting place may not see this event, much less the gatherings of our profession in those intermediate regions which must one day become the home of millions ; but you who have commenced the battle of life, when the passing years will have left their impress, and you take your stand between the present and the future, will witness vast changes, and in the meetings of the " Canadian Medical Association " will find yourselves surrounded with brethren, coming from the different quarters of the Dominion—from the Pacific coast with its genial winters,—from the valleys of the Sas-

catchewan and Assiniboine—from the prairies of Manitoba, from the old homestead Provinces of Ontario and Quebec, from those Provinces by the sea, and *you* will reap the benefits which such meetings are so well calculated to confer, for they will embrace the experience of the profession under varying climates and under many conditions. And gentlemen we must not be discouraged by seeming failures. These are incidental to the commencement of all such institutions. The time will come when full success will crown our efforts, and our Association will be commensurate with our nation. We must have our evening as well as morning to constitute a perfect day. We cannot measure the result by present benefits. They will assume proportions which will surpass the anticipations of the most ardent. For no matter how extensive the experience of the individual practitioner, how close his observation, how powerful his mental capacity, he will, if confined to a locality, become cramped by its limits, and it may be his professional growth checked by an incrustation of routine so apt to settle upon us all. Throw the same person into contact with genial minds and he will enter upon new fields of thought, and receive as well as impart new suggestions, and that in proportion to the extent of country which may be represented. This has been the case in other departments of culture, and will prove true when professional brethren meet, for each member from his contact with disease under varying circumstances will bring to light some new experience and at the same time will carry away that detailed by others, each having some special opportunities in the wider field of observation, whilst the most cultivated will be benefitted even in their own special direction by the critical shrewdness of those who may be their inferiors in their specialty, yet their equals if not their superiors in other departments of the profession.

Another result will be the modifying influence which will be exercised on the extreme of the profession. The too hasty will be held in check by the naturally conservative,

whilst the latter will be stimulated to new life by the impulsive energies of the former. And all will be stirred up from a sluggish routine which dislikes to have its calm disturbed, or drifts lazily away with the tide of opinion and accepts the dicta of teachers, rather than enter upon that strict investigation and careful line of thought so necessary to all progress.

By such collisions of mind may we not hope that there will arise some check to fashion, which has lessened and still lessens the influence of the profession. No one can deny the prevalence of fashion. Not merely in the past, when dogmatism prevailed in proportion to existing ignorance, but even now in our own times. The evil is ever ready to come to the surface. Those now living will recollect how Broussais swayed the schools and how his facts and theories were accepted or rejected. How every departure from a healthy condition was regarded as the result of a sthenic state, and how, as a matter of course, bleeding and antiphlogistics were the great agencies for dislodging the enemy. Then again, diseases were ascribed to the failure of vital powers and bloodletting was so little used that it was lately treated by one of the most eminent in the profession as a "lost art." "Building up" was a necessary consequence; and then stimulants advocated as the best means to arrest the flagging powers of life to such an extent that (with many practitioners) no condition would seem to contra-indicate their use. And again the pendulum swings, and already are there some who will not allow that stimulants of an alcoholic character are admissible in any case.

At one time mercury was the great specific, and was pushed to such an extent that men felt the remedy to be worse than the disease: and from the ignorance which led to its abuse there came a rebound, and by some (wisely or otherwise) it is repudiated and cast on one side as a vicious poison, A great change has come over the profession as regards cholera. It is not many years since its contagious or communicable character was generally denied. Now it

is as generally admitted. Thus it is. Theories rise and fall; and medicines, which belonged to observed facts we might suppose to be better grounded, pass through the same phase; to-day used, and commended as efficacious, to-morrow neglected or condemned.

No doubt a few active or powerful minds lead to such results. By their force they set the new system in motion, and the mass follow; and the followers of a sect are always more inclined than the founders to push systematic opinions to the most absurd extreme; "and if we are to believe the recorded results of therapeutic research, conducted under complicated conditions, we shall be obliged to admit that the same diseases have equally well been cured by the interposition of the gods—by witchery and priestcraft—by the most sanguinary and antiphlogistic and by the most mild and expectant treatment; by remedies founded on the rational pathology of the disease; by the administration of infinitesimal parts of nothing; by peppermint water and bread pills. Each and all of those diverse plans of treatment have had their advocates, who bring forward in their favor accumulated masses of evidence."

There can be no effect without a cause. But the difficulty is to determine, amid the complicated actions of the human body, what is the cause. And yet there must be some one or other which shall be efficient in the varying systems of treatment. For if similiar results are attained, are we not compelled to admit that nature asserts *her* supremacy, and, in spite of the errors perpetrated, rises superior to the depressing agencies arrayed against her? Men become the subject of disease, and under every system throw off the morbid state and resume a healthy condition. Many a nostrum has been used and proved apparently successful in the hands of the regular practitioner, and frequently the thorough empiric can parade the cures which have attended his panacea. And both the regular and the empiric have succeeded, not because their remedies were beneficial in themselves (in many cases they may have been

injurious) but independently of the means used. We have therefore, to look for a reason why this should be. Why judicious means shall fail in the hands of one man, and why inert, or it may be injudicious medication, shall be attended with favourable results in the hands of another. It is a common experience to witness the eventual failure of the theories, or of the medicines which have been initiated by strong and ardent minds because they are unphilosophically based, yet the success which has attended theories demonstrates the necessity of looking for some principle beyond mere physical agencies, some underlying cause for the success which follows the same or varying treatment. It may be urged that the "vis medicatrix" explains the difficulty; but that power has been present in the same case in which the philosophical attendant has failed, and the inert globule has afterward succeeded. We are there compelled in *certain cases* to look further for the efficient cause; one which aides the ignorant empiric as much as it does the regular practitioner—one which stimulates the force of the system to renewed activity and to a healthy termination, one which is more than a natural tendency to a sound state —one which exercises a curative power when called into play, and residing in the mind and proceeding from it aids the physician, who enlists in his favor a strong anticipation more potent in certain temperaments then well adapted drugs. This is no new idea. It is one we all recognize, yet one we continually overlook. We are so engaged in the contest with disease—so bent upon effecting results by the power of medicine—that we are practical sceptics of the enormous force which the mind exercises not only over the functions of the organs, but over the structure of the organs and tissues themselves.

Brown Sequard, who has devoted much attention to the nervous system, has thus expressed himself, "Power of the mind over the body is much greater than most of you imagine; indeed, I do not think that any one among you, (he was addressing a public audience) however exalted

may be his idea of the strength and variety of that power, has an adequate conception of its magnitude within the bounds which I will mention." Again he remarks, "The cure of any illness which does not consist in a disorganization of the tissues can be accomplished when the person thinks it can be done. If we physicians, who treat patients every day, had the power to make them believe that they are to be cured, we certainly would obtain less fees than we do. There is no doubt at all that if we could give to patients the idea that they are to be cured, they would often be cured, especially if we could name the time for it, which is a great element in our success." I have succeeded in this way, and I may say that I succeed more now than formerly, because I have the faith that I can in giving faith obtain a cure."

Such are the opinions and experience of a close philosophical observer, one who has devoted great ability and ceaseless energy to the solution of nervous phenomena.

This is an aspect of our profession which demands our consideration; for though it has been well determined that the mind is often seriously affected by the condition of the body, it is questionable whether the body is not as much influenced by the mind, and that changes may thus be brought about even in the tissues themselves. If this is so, it will give one solution why recoveries occur under the same or varying systems of treatment, when the *vis medicatrix* cannot be regarded as the cause. This is a class of cases which gives efficacy to, and confirms each peculiar system of treatment in the estimation of its followers; and it will be futile to reason with any one as to the merits of his system, if he is *conscious* that he has been relieved when using it. We can only do so by going behind the system and showing that there is a cause which is operative though not generally acknowledged; a *cause* capable of producing results of a wondrous character, and when recognised sufficient to reconcile to sound philosophy what now appears a mass of contradictions.

I do not say that this class of persons on whom the mind is capable of producing such results is very numerous; but it is numerous enough to make the results a disturbing element in our medical progress, indeed to such an extent as seriously to affect the laity in their belief, and the profession itself in its certainty.

There are sufficient reasons to make us suspect that under anomalous conditions not only can the functions of organs be affected, as was demonstrated by Mr. Braid, of Manchester, but that changes in the tissues may be the result of disturbance in the nervous force; that this latter can assume various phases, being transmuted into heat or electricity, or manifesting itself in chemical power or motion. Be this as it may, Brown Sequard gives one among many instances in which nerve force caused physical changes of a remarkable character. He says: "A mother was looking at her child who was standing at a window with its fingers on the border of the window under the lifted sash. She saw the sash come down with great force and crush the fingers of the poor child. The mother remained unable to move, feeling immediately a pain in the three fingers at the very place where the child had been injured. The fingers swelled, an effusion of blood took place, ulceration followed, and she was a long time being cured." How this physical change was brought about, by what modifying power, it is difficult to determine. We cannot admit that the imagination *per se* could have been the efficient agent however important the role it played in the occurrence. But come from what condition of the mind, or tendencies of the nervous system it might, this, and phenomena similar in character exist as facts, and it will be wise if the profession give them due attention. They may be very few among the many, yet the principle involved in their production may supply a rationale for the instances which are adduced by empirics as proofs of the efficacy of their nostrums, and prevent the regular physician from being himself misled, or misleading others. A

decided benefit will thus be gained. We will wrest from the ignorant their apparent success. We will make amenable to the laws of philosophical induction what has been vague and indefinite. For however subtle the principles which are operative, they will be mastered by a rigid system of investigation, and as soon as the phenomena become tangible they will not long escape the penetrating power of the medical mind.

Facts, no matter how incompatible with our previous experience and theories, will have to be faithfully registered, and when a sufficient number has been accumulated, then some one will rise to the emergency, and establish the law of their production.

Medical science has always required patient research, and never more so than at the present time ; its foundations are based upon the laws of being, and these laws are bound up with, and modify every change in the organism. And as there is no domain of nature but what may throw light upon our path,the amount of knowledge requisite to become a well grounded member of the profession will steadily increase until it touches the inconceivable. And if the scientists who can stand on the firm earth, and have to deal with matter in its more simple combinations, have still before them vexed problems and long years of patient research, how much greater must be the endurance of the physician who has to determine his certainties amid the shifting sands of life, where the varying phases are all but infinite and the organic forces and mental powers assume protean shapes.

In May Dr. Steves and I went to Louisville to attend the meeting of the American Medical Association. We were most kindly received, and they have responded by appointing six of their number to be present at our session. There is evidence that the meetings of their Association are producing a very beneficial result upon the whole profession in that country ; not only is the tone and standing of the profession raised by the mixing of the leaders and veterans with the general body, but its culture and intellec-

tual attainments force upon the public a truer estimate of its importance. A late President, Dr. J. M. Toner, says: "It must be apparent to all that the concentration of medical thought, and the scientific aspirations of the profession of the country, as expressed through the Central Association, are such that by its unity of action it exercises more influence now over the public and the profession than ever before; or than would be possible without such combined association. This is particularly noticeable in States in which there has been recent legislation affecting the profession and public health." Again "It is a source of sincere congratulation that our medical educational institutions are rapidly enlarging and perfecting their curriculums; and becoming more thorough and efficient in teaching the science of medicine."* Too much importance cannot be attached to the attainments required of the members of our profession, for, "it is our distinction and hope that to secure its largest practical amelioration, society must look mainly *to us*—our range of duty being the whole organization of man in health and disease—psychically as well as physically we alone offer that wider field of new action which an advanced society now requires. All that gives happiness, assuages pain, prevents disease, lengthens life, betters the individual or improves the race—these, the great concerns of living humanity, and carrying with them the principal morals of society, belong to our care. On them we are the only teachers that can speak with authority, or that, by and by, will be listened to with conviction. We alone can make theory on them, give way to demonstration, speculation to ascertained fact, doubt to certitude; and outside our pale there is no teaching nor knowledge that is secular beyond what forms a fraudulent empiricism on one side, and a perilous credulity on the other."—(Medical Times.")

There is a subject which I would submit to the Association for its consideration, and that is, the want of a regis-

*President's address, 1874, at Detroit.

tration of births, deaths and marriages. In some of the Provinces it does not exist, and it will be for you to decide whether a memorial from this Association to the general government will tend to hasten that most to be desired action of the Dominion Legislature.

Case of Peri-uterine Hæmatocele.—By WILLIAM GARDNER, M.D., Professor of Medical Jurisprudence, McGill University, and Attending Physician to the Montreal Dispensary.

(Read before the Medico-Chirurgical Society, Montreal.)

Mr. CHAIRMAN AND GENTLEMEN,—I am induced to bring before you the following case of a somewhat rare disease, one which, hitherto, has not been up for discussion before this Society since its revivification. Apart from this and the fact that the disease has frequently been confounded with other conditions even by eminent surgeons, I have no special features of interest to claim for the subject of the present paper.

Mrs. W., æt., 24, has been married seven years, and had one child at full term, about a year after marriage. She has also had what she supposes were two miscarriages ; the first three and the other two years ago. She was not attended on either occasion by any medical man, but asserts that for two or three months previous to each one the menses had not returned, and that she was then seized with sharp intermittent abdominal pain attended with the discharge of liquid blood, and solid ingredients. The bloody discharge continued for three weeks after the last of these two seizures. Shortly after the last miscarriage, two years ago, she had an illness of two month's duration, the main symptoms of which were swelling of legs and feet, and scanty coffee-colored urine. This illness was described by her then medical attendant as inflammation of the kidneys. After this illness her health remained for some time below

par, but otherwise was much as before, that is she suffered from a constant tendency to backache and leucorrhœal discharge. From the date of the last miscarriage till March of the present year the patient has been regular as to quantity and time of appearance of menstrual discharge. On the 26th March and day or two following was unwell ; on or about 30th April had very slight discharge with pain lasting an hour or two only. During the last few days of May and the beginning of June had what she calls flooding, accompanied with clots of solid ingredients. This had ceased for a few days when, on the evening of the 5th of June she was seized with severe pain in the lower part of the abdomen. After a few hours this left her and she slept fairly during the remainder of the night; and was able to be out of bed the next day. On the evening of the next day (Sunday 6th June) the pain returned, disappearing as before after a few hours' duration, to again come on, on Monday evening the 7th of June, with greater intensity than ever. I was now sent for, and found her condition to be as follows : she suffers intensely with pain in the lower part of the abdomen and back, causing her to moan continually. The face is pale and has a shrunken or pinched look like that of collapse. The pallor is certainly greater than would be accounted for by the severity of the pain, only. The pulse is weak and rapid, I did not use the thermometer, but feel convinced from the sensation imparted to the hand that it was below the normal standard. Examination of the abdomen reveals enlargement of the hypogastrium equal to that in pregnancy at the end of the fourth month. The enlargement is most marked towards the left iliac region. It is exceedingly sensitive, the left iliac region being especially so. Micturition is somewhat retarded ; when making the effort the patient feels as if a foreign body was present in the vagina tending to escape.

On vaginal examination the finger detects the os uteri displaced upwards and forwards behind the pubes. It is neither dilated nor dilatable. The recto-vaginal fossa is

occupied by a moderately firm, elastic, irregular-shaped, and very sensitive mass. This so encroaches on the os uteri as to make it feel like a little pit or depression in the mass. Introduced to the rectum the finger immediately encounters the tumour just described filling almost completely the concavity of the sacrum. The uterine sound enters readily to 1½ inches beyond the normal depth, if its point be directed rather more forward than usual. The sound in the uterus and the hand on the abdomen detect the fundus uteri displaced and lying somewhat to the right side and much less sensitive than that portion of the abdominal enlargement to the left side, which is evidently formed by the tumour.

The treatment and regimen enjoined were perfect rest, in every sense of the word, the avoidance of hot drinks, a diet of cold milk and beef tea, turpentine stupes to the abdomen, and a hypodermic injection of morphia.

June 8th., 10 a.m., the pain was immediately relieved, and commenced to return only an hour ago. The hypodermic morphia was repeated. At 10 p.m. the temperature was 1020, and the pulse 120. Another hppodermic injection of morphia. This state of matters continued without change for three or four days, there being on each day a morning remission and evening exacerbation of temperature with this additional symptom, that on Wednesday, June 9th, there was a reappearance of the bloody discharge which had ceased at the time of setting in of the pain.

June 11th.—The pain is entirely gone, and the temperature normal. There have been neither rigors nor perspirations at any time. The sensitiveness of the parts both externally and internally is very much diminished. The bowels have been moved spontaneously four times.

June 13th, 3 P.M.—Patient is feeling very comfortable, with a normal temperature and pulse of 96. At 7. p.m., pain of same character as before returned with great severity. Saw her at 9.30, p.m. Pain still intense; temperature normal; pulse, 120. Hypodermic morphia, in a full dose, relieved her at once.

June 14th.— Patient has slept all night, the pulse and temperature still normal. The tenderness of the abdomen is more marked than yesterday. There is also some increase of the enlargement, otherwise patient is free from pain and quite comfortable.

June 17th.—Doing well ; temperature normal ; pulse is still 100. Complains of nothing but some soreness of lower part of abdomen ; this is decidedly best marked in the left iliac region. Here there is a distinct elastic tumour, very sensitive to pressure. There is now a fœtid vaginal discharge, resembling in odour that present in cases of retention of portions of placenta or fœtal membranes. This odour is very persistent in the examining finger, lasting for many hours, notwithstanding repeated washings with a solution of Condy's fluid.

June 27th.—Has steadily improved since date of last report. There has been no pain, and the abdominal tumour has been reduced in size very considerably, the same is to be said of that to be felt in the recto-vaginal fossa. There is no difficulty in micturition. The temperature is normal ; the pulse remains rapid, 90 to 100 ; appetite improving. The vaginal discharge continues but is very much diminished in quantity.

July 17th.—Patient is menstruating, the only unusual symptoms being rather a free flow with some pain in the back. The flow, it may be remarked, continued three days. In other respects also the patient is doing well.

July 23rd.—Patient has been up for some days ; expresses herself as well but weak ; no pain or difficulty in micturition. The bowels are regular, the appetite good. Sleeps well ; has neither rigors nor perspirations ; the pulse is still rapid, 90 to 100. I am, however, inclined to think that her normal pulse is considerably above the average. The abdominal enlargement has almost disappeared. There is still a little tenderness in the left iliac region ; none elsewhere.

Vaginal examination reveals the continued presence of

the tumour in the recto-vaginal fossa, but it is firmer in consistence, reduced considerably in size, and decidedly less sensitive. The os uteri has nearly regained its natural position in the pelvis. The uterine sound enters to the depth of about three inches only, or nearly three quarters of an inch less than at the time of commencement of my attendance.

The conjunction and sequence of the symptoms in the case just described have left in my mind no doubt that they were those of effusion of blood in the pelvis.

The questions naturally arise—Whence the source of this effused blood ? and into what part or cavity was it effused ?

It would not be possible to say decidedly where the effused blood was situated, but I think it is more than probable that it was in the cellular tissue of the pelvis, rather than in the cavity of the peritoneum.

I have come to this conclusion from the tension of the swelling, the firm way in which the uterus was fixed, almost immovably against the walls of the abdomen, and the circumscribed character of the swellings, as felt behind the uterus and to its sides through the posterior vaginal *cul-de-sac.*

The question of the source of the blood is one more difficult to anawer. The effused blood in pelvic hæmatoma, or hæmatocele, comes from a variety of sources. As a matter of fact in rupture of blood vessels into any part of the peritoneal cavity the blood will gravitate and occupy the most dependent portion of the pelvis, viz : the retro-uterine or Douglas's fossa. The source of blood may thus be rupture of cysts, of aneurisms, of the gravid uterus, of ovarian or Fallopian gestation-sacs.

A fatal case of rupture of a Fallopian tubal gestation-sac was brought before the December meeting of the Obstetrical Society, London in 1873, by Dr. D. C. MacCallum, Professor of Midwifery in McGill University.

Sudden large effusions of blood are most likely to have been brought about in one of the ways just mentioned,

which are also the sources of those forms of hæmatocele which occupy the peritoneal cavity—the most dangerous and rapidly fatal forms of the disease. Other sources of bleeding into the peritoneal cavity which would in these cases be apt to be more moderate in quantity than when due to the above sources, are, that which may occur from the ovary after the escape of an ovum under unusual vascular excitement, which may be due to many causes augmenting the condition of physiological erethism attendant on the performance of this function ; and retrocession of menstrual blood from the cavity of the uterus through the Fallopian tubes. The last mentioned variety can only occur from sudden large outpouring of blood from the uterine mucous membrane (or as some assert from the the lining membrane of the Fallopian tubes themselves) together with obstruction to its outward flow, from complete occlusion due to atresia of the cervix, or great narrowing of the cervical canal from anteflexion or other morbid condition.

Hæmatocele, from the cause last described, is probably rare,—certainly the uterus often becomes distended with catamenial fluid, prevented from escaping by obstruction, without any such result occurring.

In the case just reported no such cause could operate, as the cervix uteri was perfectly patent.

Another source is rupture of some varicose vein. The veins of the pelvic sexual organs are large and numerous, and liable to become varicose from various causes. Those of the broad ligament are often large and varicose in women who have borne many children, or in whom the uterus remains in a condition of subinvolution, and chronic congestion. Sometimes, indeed they are so congested as to present a dark purple appearance. If in this condition the veins of the broad ligaments give way, which they are apt to do from the little support the receive from the loose tissue by which they are surounded, then effusion of blood takes place into the peritoneal cavity. The coats of the

veins may, however give way without any laceration of the peritoneum, and the blood is then extravasated into the loose cellular tissue in the broad ligament and immediately surrounding the middle and lower part of the uterus. The last is, I am inclined to believe, the cause which operated in the present case,—and this especially when it is remembered that my patient had been subject for years to leucorrhæa, and chronic backache, both giving evidence of congestion of the uterus and its appendages.

The possibility of abortion having occurred especially in view of the history of menstrual irregularity for two or three months previous to the accession of the hæmatocele, and the enlarged condition of the uterus as indicated by the abnormal depth to which the sound entered must not be forgotten. If so it probably operated as an exciting cause to rupture of varicose veins.

Peri-uterine hæmatocele has often been confounded with other diseases. Barnes asserts that until the last twenty years almost every cause of the disease was confounded with inflammatory effusion, and even now many are slow to admit the evidence upon which its existence is established. In 1850 the disease was so little known that Malgaigne attempted to enucleate a supposed fibroid tumour of the uterus which proved to be a collection of blood. Again, Scanzoni in his work on "Chronic Metritis," issued in 1863, says: "We regret not to be in a position from personal experience to speak of this disease, for in our certainly extensive and protracted observation we have not been able to diagnose peri-uterine hæmatocele in a single case." The diseases from which we are especially to diagnose pelvic hæmatocele are pelvic cellulitis and peritonitis and retroversion of the uterus. The diagnosis not rarely resolves itself into settling the question as to which condition, hæmatocele, or pelvic cellulitis or peritonitis came first; the effusion of blood is exceedingly apt to induce inflammation. So that in any case what is now pelvic cellulitis, or peritonitis, may have begun as hæmatocele.

Sudden intense pain of the lower part of the abdomen, with pallor, cold sweating and rapid pulse, in short, collapse, without previous rigors, these are the symptoms of internal hæmorrhage, and they are of especial significance when they occur during or after abortion, or about the menstrual period, in persons who have a history of chronic ovarian or uterine trouble.

In pelvic cellulitis the patient has generally been recently delivered or has aborted. It sets in with rigors followed by pain less intense than in hæmatocele. In hæmatocele the pain is the first symptom and is very severe at the outset. The swelling or tumour in hæmatocele is, as a rule, larger, displacing the uterus ; it is also softer at first, and as it diminishes in size it grows harder until it finally disappears. It is also almost always, ante, or retro-uterine. In pelvic-cellulitis the tumour is at first hard, then becomes soft and fluctuating as suppuration occurs ; it is, moreover, nearly always one-sided.

With regard to treatment, on certain points all authorities are agreed, on others there is great difference of opinion. During the period of effusion of blood, and for some time after, absolute rest in bed, the avoidance of hot or stimulating drinks, the application of ice-bags to the hypogastrium, maintaining the functions of the bladder and rectum, and the giving of opium in quantities sufficient to relieve the pain and quiet the nervous system, are seemingly the most important indications.

The question as to the propriety of tapping is one in which there has been and still exists great difference of opinion, eminent names being ranged on both sides. The correct position to take in this as in most others in which difference of opinion prevails is probably one of eclecticism. If the tumour be of moderate size, and produces but a moderate amount of distress easily controlled by opium, it is better to leave it to nature. Such a course is to be recommended in cases such as the one now reported.

But if the tumour be large, and especially if there be

symptoms of irritative fever or septicæmia, we must then think of puncture. In cases where the tumour is producing alarming symptoms from its size only, the aspirator should be used for tapping, so as to prevent the admission of air. But if there be evidences of suppuration and septicæmia or pyæmia, then a free incision ought to be made and the clots removed with the finger, after which the cavity may be injected with solutions of iodine, carbolic acid, or Condy's fluid. The site of selection for the puncture is usually the protruding part of the tumour in the vagina behind the cervix uteri, and the trocar or bistoury is plunged into the swelling in a direction parallel with the axis of the uterus.

Case of Polypus in Utero.—Course, Duration and Treatment By J. T. Moore, M.D.

Mrs. C., a married woman, aged about 30, with light complexion, blue eyes, and of average height: about five feet four inches, first came under my notice on the morning of the 22nd of last April. The following is a history of her case, as given by herself up to that time. She is the mother of three children, the youngest being about two years old. In the latter part of December, 1874, she was taken with a severe pain in the right illiac region, extending across over the fundus uteri; shortly afterwards hæmorrhage commenced per vaginam. A medical man was sent for who had previously attended the family (a Homœpath). He diagnosed the case as nothing serious, and left some medicine, the chief part of which was hamaduelis-virginica or the active principle of witch hazel; this is considered one of their strongest anti-hæmorrhagics The case progressed, and he continued the treatment up to April 21st, 1875. She lost more or less blood nearly every day during the intervening time, never missing over three days at a time. On the night of the 21st of April, she had a severe syncopal attack, such as is often produced from extreme loss of blood, which lasted about two hours; under light stimulants she revived, and

on the following morning I was sent for. I found her in a very low state, not able to turn herself in bed; very anæmic and emaciated. Lips and nails had a bloodless appearance.

Unfortunately, I am unable to give the state of her pulse or temperature, as I am now writing from memory some three months after recovery of the patient.

On examination I found great tenderness along the line of right fallopian tube, extending to right ovary. Uterus rather low down in vagina, and slightly antiverted. Discharge very fœtid and disagreeable. She complained of severe pain in right illiac region, which seemed to be in a measure paroxysmal; when these paroxysms came on she suffered from nausea and vomiting. Free emesis seemed invariably to ease the pain.

Treatment.—I put her on following mixtures:

R. Quinine Sulph. ℥ss; Tinct. Ferri. Mur. ℥iiss.; Aquae Purre, ad ℥iv. Sig. Take a desert spoonful every fourth hour, alternated with—

R. Extract Ergotæ Fl.; Acidi Gallicia a ℥i; Syrupis Simpl. ad ℥iii. Sig. Shake well, and take a desert spoonful every fourth hour.

Also ordered injection, Liq. Ferri Persulph, one part to eight of water. Used Quinæ on account of the prevalence of malaria in this section. Diet regulated.

In a short time I found she could not tolerate the Iron mixture. I then tried in turn the sacharated Carb. Ferri, Amonio Sulph. Ferri. and Ferri. Ferro. Cyanidi but all with like results. After a few doses of each the stomach would become perfectly intollerant, and a peculiar idiocyncracy was shown throughout which prevented any assistance from this valuable drug.

During this time, however, the hæmorrhage became less severe, and the patient improved in strength.

I now concluded there must be some local trouble within the uterus, upon which the major part of the symptoms depended. I therefore determined to dilate the os uteri, so

as to enable me to make a thorough examination. I made a number of (graduated sizes) carbolized sponge tents ; commencing with the smaller, I introduced one every 48 hours, leaving them in 24 hours. After using the fourth I found I could carry two fingers through the cervix uteri. Upon placing the patient in position, I made a digital examination, and found a growth high up on the right side of fundus just behind the junction of the right fallopean tube, which I diagnosed to be a riband-shaped polypus. It was impossible to remove it without further dilitation. I then used two very large-sized tents intending to remove the growth with the craseur. On removing the last tent I observed some clots following it, and when prepared to use the instrument, what was my surprise to find the growth had entirely disappeared. I could only account for it as having sloughed off from pressure of the two last large tents. From this time the patient commenced convalessing, showing only for a few days slight pain in the region of the uterus She went four weeks until her usual time for being unwell, and has passed three periods with regularity, seemingly enjoying good health. She is now able to walk about the town, and is regarded by everyone as having almost miraculously recovered from a severe and fatal illness.

Remarks—I. What peculiar connection seemed to exist between the uterus and the stomach ? Did the severe pain from the uterus cause nausea ? If so, why did the vomiting ease pain ? Or was nausea and vomiting an accidental complication.

Was the tenderness along the right fallopian tube caused by irritation or inflammation, extending along within the tube from seat of the tumour, which was in close proximity to the ostium internum ?

Port Burwell, August 13th, 1875.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Acute General Tuberculosis.—Fatal by Meningitis. Under DR. ROSS. Reported by Mr. R. L. MACDONNELL.

S. B., æt. 14, was admitted into the Montreal General Hospital on the 15th August, 1875, under Dr. Ross. She is a strong and robustly-built girl, though small for her age, and has been for the last seven years an inmate of one of the charitable institutions in this city. Nothing could be learnt of her family history.

Her illness began rather suddenly, nine days ago, with fever and feeling of great weakness, together with great pain in the back. This was soon followed by some vomiting (easily however, controlled) and some headache. She then became very restless, somewhat delirious at night, frequently waking sharply and giving a sudden loud scream, with complaint of her back—sometimes of her head. It was then noticed that she squinted. She was seen by Dr. Ross on the afternoon of the 5th, and was removed to hospital the same day.

Aug. 6th.—She now lies in a very drowsy condition. Can, however, be roused to partial consciousness by being spoken to. Head continually directed to the right side, and eyes half shut. There is decided strabismus and very frequent spasmodic movements of the right eye. Right pupil slightly more dilated than the left. Both act very sluggishly with light, and oscillate considerably. Neck stiff but no retraction of the head. If the head be moved, she screams and cries out, "Oh! my back." Pulse 68.

Ordered. Head to be shaved, and bladders of ice to the head, and the spinal ice-bag to be applied, and to take Potass. Iodid. gr. x every four hours.

Aug. 7th.—Passed a bad night. Screamed a good deal. More drowsy. Drooping of right upper eye-lid. More dilatation of that pupil. That eye more stationary ; pupils do not act. Abdomen retracted. Cerebral maculæ of Troussean particularly well marked. The opthalmoscope showed all the retinal vessels intensely congested. Pulse in the morning 68 ; in the afternoon, 108. Temperature 101°.

Ordered. Calomel, gr. 5, to be followed by Black Draught.

August 8.—Had two severe convulsions yesterday evening, and to-day is profoundly insensible. Marked ptosis on right side with corresponding pupil widely dilated. Pulse in the morning 104 ; temperature 100·6, in the evening pulse 128 ; temperature 101°.

August 9th. Comatose and livid, with noisy breathing, pulse, 130 ; temperature, 101°6. Died this afternoon.

Post mortem, eighteen hours after death.

Vessels of scalp congested and bleeding freely on being divided. Cerebral veins of the convexities gorged to their utmost extent with blood. Considerable effusion of serum beneath the arachnoid. At the base of the brain this membrane was found thickened and opaque. Similar patches of thickening with slight deposit of lymph being also noticed along the line of some of the congested vessels. The commissure of the optic nerves, and the roots of both third nerves were imbedded in a deep mass of gelatinous lymphy deposit. It was thicker and more opaque over that of the left side. No distinct evidence of tubercle could be found in this region, but a quite decided granular condition of the vessels was noticed, especially at the inner extremity of and passing along the fissure of Sylvius. Puncta-vasculosa numerous and distinct. Corpus Callosum wanting in firmness. Fornix very much softened. Ventricles considerably distended, and containing about 4 oz. of limpid serum. No signs of softening in any part of the ventricular walls. Choroid plexuses extremely congested. Velum Interpositum opaque and thickened, and dotted

with minute specks of miliary tubercle. Spinal cord and its envelopes, normal—arachnoid especially being clear, transparent and unaffected.

Heart and pericardium healthy. Pleuræ adherent at several points by fine bands, and their surfaces sparsely studded with a number of fine miliary tubercles, grey and hard. The Lungs also contained in their substance a small quantity of similar tubercles, which were found aggregated together into a small mass at the apex of the left lung.

Miliary tubercles were also found in the capsules of the kidneys,—a few in the structure of these organs—in the peritoneum, on the surface of the liver and in the capsule of the spleen.

Case of Ulcer of the Stomach. Death, Autopsy. Under the care of Dr. DRAKE. Reported by JAMES C. CAMERON M.D., House Surgeon, Montreal General Hospital.

A. Q, æt 17, admitted to Hospital 30th May 1875, complaining of vomiting and great prostration. Three days previous to admission she had vomited a large quantity of dark blood, chiefly in clots. Had never vomited blood before, and has not done so since. She has suffered from pain in the epigastrium, constant nausea, occasional vomitting of glairy frothy mucus, and a disinclination for food. Her menses have been irregular for some months. Her appearance is very anaemic ; lips and cheeks blanched, eyes clear and prominent ; she has lost flesh and seems much debilitated ; her expression is languid and apathetic and her manner taciturn. Upon examining her carefully she complained of a burning pain in the epigastrium, of a constant desire to vomit, which was greatly increased after partaking of any food. Pulse regular but weak ; heart sounds quite natural ; bowels constipated. Dr. Drake diagnosed the case as one of ulcer of the stomach, and accordingly put her on the following treatment: A pill of argent nit gr. $\frac{1}{4}$, morph. acet. gr. $\frac{1}{24}$, P. tragacanth co. q. s. An enema

of castor oil and turpentine at once, the epigastrium to be painted over with collod. cantharidine. Milk and beef-tea, iced, to be administered every half hour, one tablespoonful at a time; ice in small pieces to suck; no solid food to be on any account allowed. Notwithstanding every care, the irritability of the stomach still persisted; so, on the 1st of August Dr. Drake ordered an enema of beef juice and brandy to be administered every two hours, nothing but ice being given by the mouth. This treatment was kept up for two days and nights; the nausea and vomiting ceased, the pain in the epigastrium disappeared, her general appearance began to improve, she seemed more lively and in much better spirits, and the color returned somewhat to her lips and cheeks. She felt so much better that she begged to have the injections discontinued, and to be allowed some food by the mouth. Accordingly, on the 3rd of August, milk and beef-tea, iced, were administered in small quantities as before, and fer. carb. sacch. grs. xv ordered to be given three times a day. All went well till the evening of the 4th, when about nine o'clock she complained of a sharp pain in the epigastrium; all food was at once stopped, enemas were again administered, and ice given freely; but the pain persisted, and nausea returned.

On the 5th the pain became so great that an hypodermic injection of morphia had to be given; the relief, however, was only temporary, and during the course of the day she became quite insensible; vomiting, convulsive in character, set in; no blood was brought up, only a frothy mucus. She lingered during the night and died early on the morning of the 6th, exhausted.

Autopsy.—Rigor mortis well marked; the body was quite anaemic. Stomach, pale and anaemic; no perforation; upon the lesser curvature, about two inches from the cardiac orifice, a small, circular punched-out ulcer was found about the size of a five-cent piece. The mucous coat was quite eaten through by it and the walls much thinned. The base of the ulcer was slightly congested.

On the posterior surface of the stomach there were two large patches of ulceration of quite recent origin, the mucous membrane being softened but not wholly destroyed. These patches were separated from each other and from the small deep ulcer by healthy mucous membrane; they did not communicate at any part. Between the small ulcer and the cardiac orifice was an old cicatrix, much hardened and thickened, marking the site of an old ulcer, which had undergone spontaneous cure. The lungs and other viscera were anaemic, but otherwise healthy.

Case of Apoplexy into the Pons Varolii.—Under the care of Dr. Geo. E. Fenwick. Reported by J. D. Cline, B.A., M.D., Assistant House Surgeon, Montreal General Hospital.

J. E., a sailor, aged 50, was brought into hospital on the 7th of August. Scarcely any history could be got of his previous condition. His shipmate who brought him said that he had been in the same state as he was then during nearly the whole voyage, which was about two weeks; that he had fallen suddenly into this state, and had been left to himself, and very much neglected. He was very filthy. He could walk with help. Could only be roused by a loud tone to reply to the simplest question. Could scarcely be induced to swallow anything. Wanted to sleep all the time. There was no paralysis, but all the movements which he could be induced to make were very sluggish. Would draw up his legs slowly when pinched. His pupils were not dilated, but responded very slightly to the stimulus of light. Temperature was normal in the axilla, but extremities were cold and pulse slow, between 60 and 70, and very soft. He evacuated his bowels and bladder unconsciously four times while in hospital, which was during 48 hours. The only thing done for him was the administration of stimulants. He became gradually weaker and more comatose, and on the day of his death could not swallow at all. Before his

death, at 2.30 a. m., he had two convulsions, the first at 11 p. m., and the other immediately before death.

Autopsy.—There was great congestion of all the visceral organs, lungs, liver, kidneys and spleen, and of the brain and its membranes, some serous effusion into the ventricles, and a large clot of blood, involving nearly the whole of the substance of the pons varolii, and mixed with the *débris* of its broken-down tissue.

Periscopic Department.

SURGERY.

The Dangers of Operating on Habitual Drinkers.

Sir James Paget, in his recently published Clinical Lectures, says, (pp. 14 and 15): "One does, indeed, sometimes meet with habitual drunkards who pass safely through the perils of great operations; but these are rare exceptions to the rule, according to which one may reckon that the risks of all operations increase with the increasing degrees of habitual intemperance. I think you will find that a habit of slight intemperance is much worse than occasional great excesses; that regular soaking is worse than irregular carousing; probably because of the steady impairment of the blood and of all the textures to which the soaking leads. Of course you will keep your hands off notorious drunkards, unless you are driven by the stress of a strangulated hernia, or a stopped windpipe, or something leaving you as little choice as they do. But you must be on your guard to detect a good deal of drunkenness of the soaking kind, which is not notorious and not confessed. Be rather afraid of operating on those, of whatever class, who think they need stimulants before they work; who cannot dine till after wine and bitters; who always have sherry on the sideboard; or who are always sipping brandy-and-water; or are rather

proud that, because they can eat so little, they must often take some wine. Many people who pass for highly respectable, and who mean no harm, are thus daily damaging their health, and making themselves unfit to bear any of the storms of life.—*The Doctor.*

Operation under Chloral Hydrate.

Drs. J. S. Nairne and Alexander Nairne employed Chloral as an anæsthetic during the removal of a metatarsal bone from a child three years old. They describe the mode of administration in the *Glasgow M. J.* Of an aqueous solution of chloral, of which 20 minums contained 12 grains, they injected subcutaneously 10 minims at 10.30 a.m. No effect at 10.38. Ten minims more injected at 10.40. At 10.45 drowsy. At 10.55, 10 minims more injected: patient sleeps, and if awakened falls asleep again in a moment. At 11.05, 10 minims were administered by the mouth; pinching makes her cry, but she sleeps again immediately. At 11.15, 10 minims more by the mouth. At 11.20 she was in a deep sleep; pinching did not wake her, and the operation was performed. During its performance she began to cry as if dreaming, but left off and was fast asleep the moment it was over. She was allowed to sleep for two hours, and then made to drink a cupful of strong tea, three-quarters of an hour after which she sat up, looking dazed, but unterrified, and oblivious of pain. Drs. Nairne tell us that the solution of chloral was too concentrated, that it made deep wounds afterwards, which, however, healed up well enough; but we may observe that a much weaker solution is apt to produce ulcers, which do not always so readily heal. Drs. Nairne add that they proposed to inject strychnia subcutaneously in cases of an overdose of chloral, as they have found it make chloroformed animals brisker. They have also found a few drops of an aqueous solution of strychnia (2 grs. to the ounce) remove the nausea and vomiting which sometimes follow the inhalation of chloral.

It will be observed that nearly an hour was consumed in administering the chloral, that even then the anæsthesia seems to have been imperfect, and that ulceration followed at the points of injection. Moreover as it is by no means clear that the method is less dangerous than the inhalation of chloroform or ether, it is not likely to commend itself to other practitioners.—*The Doctor.*

MEDICINE.

Ergot in the Treatment of Increased Mammary Secretion and Inflammation of the Breast.

Dr. J. Sehtscherbinkenhoff (*Centralblatt fur Chirurg.*) has had his attention drawn to the influence of ergot on the mammary gland.

During an epidemic of ergot poisoning, he observed that in nursing women there was frequently an entire cessation of milk when symptoms of ergotism appeared.

The same phenomenon was observed among cows fed with meal containing ergot.

Regarding the accumulation of milk in the glandular parts of the breast as the chief cause of mastitis, he administered ergot in many cases in which this process was in an early stage, with the happiest results. Further, during actual inflammation of the gland, the use of ergot was attended with speedy recovery. At time of weaning, the ergot caused a speedy cessation of the lacteal secretion.—*The Doctor.*

Ovarian Compression in Hysteria.

Prof. Charcot sets out with stating that in the great majority of instances of hysteria there is an aura which starts from one ovary, sometimes both. And he further insists that it is only needful to maintain a decided pressure over the affected ovary in order to suspend the attack. This result, it seems, M. Charcot realized fully in a case of hys-

teric epilepsy. Whenever he compressed the left ovary, the hysteric symptoms disappeared. When the pressure was relaxed the symptoms returned. The compression is the same as that which is made use of when the iliac artery is compressed. The practice, if only its success shall be confirmed, seems calculated to be of use.—*The Doctor.*

Chronic Aortitis.

M. P. Jousset has communicated to the Paris Academy of Sciences the result of his investigations into chronic inflammation of the aorta, which he regards as a frequent disease, habitually misunderstood and confounded with heart disease or even with interstitial nephritis. The principal lesions are atheromata, milky and chalky patches, thickening and loss of elasticity of the walls, and finally, dilatation of the artery. The inflammation may spread from the arterial lining to the endo-cardium, or the reverse may occur: thus arises cardo aortitis. As concomitant lesions he mentions premature ossification of the peripheric arteries and sclerosis of the kidneys. M. Jousset speaks of two forms of aortitis—one painful, known as angina pectoris; the other painless, or nearly so, which has been the chief object of his study.

The chronic may be preceded by an acute aortitis, and alcohol, tobacco, coffee, and tea favor the development of the disease. In all the cases observed by M. Jousset the patients were over thirty-five years of age, and either gouty or the subjects of hæmorrhoids. The principal symptoms are habitual dyspnœa, with occasional paroxysms of suffocation, which have all the characters of cardiac dyspnœa. The pulse is accelerated, and at the same time becomes small and at length imperceptible. Cold sweats and syncope supervene. During the paroxysms the expiration is convulsive and prolonged. Sleeplessness, debility, and anæmia lead to a cachexia marked by œdema, albuminuria, and sub-delirium. Death takes place from syncope, asphyxia, or uræmic poisoning.—*The Doctor.*

Preventive Measures in Syphilis.

Mr. Acton recently read a paper before the Royal Medical and Chirurgical Society of London, from which we make the following extracts:

His paper commenced by stating that when he returned to England, after the completion of his studies in Paris, he was greatly struck with the severity and number of cases of syphilis in London, as compared with Paris, and as a consequence of this he brought the subject before the notice of the society in 1846, and again in 1860, showing that the Belgian and French troops were much less attacked by venereal affections than the English. In 1873 he found that in districts in England where the troops were not what he called protected from the women, primary syphilis existed in the proportion of 123 per 1,000 men annually He maintained that syphilis could be prevented and stamped out by providing ready means of ablution, and destroying the local form of contagion, and warning male patients not to infect other persons. The institution of hospitals whether free or otherwise, was one remedy, for treatment of prostitutes as out-patients was quite inadequate. They should be segregated as soon as diseased, and not allowed to leave hospital until they are quite cured. By doing this, as at Hong Kong and Dartmouth, the disease had been reduced to a minimum. In his visit to Brussels, in 1874, Mr. Acton had visited the Military Hospital, where he found only three cases of syphilis among the private soldiers, and two among the non-commissioned officers, out of a body of 3,500 troops. There were only nine women confined to hospital for venereal disease, showing that in Brussels the police inspection had nearly stamped out the disease. In Paris he visited the military hospitals, and could only discover six cases of primary disease, and eight of secondary syphilis, among 3,841 men forming the garrison of Paris. Disease among the females was very slight also, and Mr. Acton attributed this decrease to the police regulations.

He gave a table showing that in the St. Lazare Hospital he only found 23 cases of primary disease among 202 patients in this prison, which is under the police surveillance. With respect to England, Mr. Acton said that Parisian medical men alleged that British travellers, like sailors, were the cause of much of the disease, and that the disease would ere now have been stamped out had it not been that England and other similar countries went on continually introducing fresh cases into Paris. In London he found 24 cases of primary disease among 408 single soldiers in the 2nd Battalion of the Coldstream Guards quartered in London. In the first battalion of the Scots Fusilier Guards he found 25 cases of severe forms of syphilis among 505 unmarried men. He handed in a table extending over a year, which showed that one-fifth of the whole number of troops quartered in London in 1874 were affected with primary sores, which would have incapacitated the men from duty for a period of six weeks on an average. Perhaps 164 of these men would have secondary disease, requiring mercury, which would further incapacitate them from duty for a period of two months or so, and this would debilitate them greatly. Comparing the syphilitic affcetions of the Foot Guards with those among the troops quartered in Paris, he showed that 500 troops in London had more disease than 3,841 quartered in Paris. Mr. Acton considered that one-half the prostitutes in London were diseased; whereas of those in the districts under the Contagious Diseases Acts only about 8 per cent. were found affected at periodical examinations. It appeared that at Woolwich, during 1871-2-3, only 1,085 cases of primary sores were treated in hospital, out of a garrison of 18,250 men, or only one man was infected in 17 soldiers, instead of 1 in 6, as in London. He therefore in conclusion, looked upon the advantages of supervision of prostitutes as no longer a problem, but as an undoubted fact.—*St. Louis Clinical Record.*

Physic in Food.

Watercress has long had the popular reputation of being a powerful antiscorbutic. Probably all the *Crucifaræ* eqully deserve this title. M. Dupuy says that the plant contains an essential oil of which sulphur forms a constituent, and that he has also discovered in cress—iodine, iron, a bitter extract, and phosphorus. He therefore adds these minerals to the soil to increase the quantity in the plant and then prepares s *succus*. He has established cress-gardens for the culture of this plant in order, as he says to vegetabilise (!) the minerals which gave it such important properties.

This reminds us that long ago an Italian writer proposed to obtain iodized milk for his patients by feeding cows on hay sprinkled with a solution of pottasium iodide. We wonder if the cows would like the flavour- More recently an English writer says that the cows on the Island of Ushant, off the coast off Brittany, feed principally on sea-weed, and that consequently their milk is particularly rich in iodine ; and it is proposed that this milk be used for the cnre of diseases benefitted by iodine, as it does not produce the constituional disturbances that often result from the administration of iodine in other forms.

Last of all it has been reserved for a French Physician to iodize eggs by eleetricity. The arrangement employed can be easily understood when we say that he conveys the iodinein to the egg by what we may call electrolysis

By any of the above methods physic is to be put into the food of invalids without imparting any disagreeale flavor.—*The Doctor.*

Note on Salicylic Acid. By Edward R. Sqibb, M.D., Brooklyn, N.Y.

This substance long known as a rare and curious chemical derived from the vegetable kingdom, has lately been brought into prominent notice, chiefly in Germany, from its relation to those changes which are commonly known, and best understood as fermentations, to which class or kind of

changes so many diseases and pathological conditions are now prettty well known to belong. The writer knows far too little of the subject and its relations to attempt an accurate or exhaustive paper upon it, and the object of this note is simply to call attention to it, that it may be read up in the current literature—to give a brief outline of its bibliography, that reference may be made in regard to its history—and to offer some thoughts in regard to its sphere in medicine.

Salicin is a glucoside, or neutral vegetable principle discovered by Leroux in 1830, in the bark of some species of willow, *Salix*, whence its name. It was afterwards found in various species of poplar, and in other trees and plants. Salicin was chiefly investigated by Piria who gave an elaborate account of its derivatives, and among these of salicylic acid. Early in its history the acid was prepared by Lowig and Weidmann from the flowers of *Spiræa ulmaria*; and later, a research by Prof. Proctor, of Philadelphia, showed that our oil of wintergreen, *Gaultheria procumbens*, was really a salicylous ether; and from this source salicylic acid was obtained by Cahours. Gerhardt, Ettling, and others contributed to the researches by which the properties and reactions of salicylic acid were accurately determined and its composition fixed; but as yet it was a chemical curiosity whose potential possibilities were quite unknown. It still belonged to that class of substances which had simply consumed a large amount of patient labour, and in relation to which the rigid utilitarian asked Michael Faraday "What is the use of such things?" and received for reply the answer. "What is the use of baby?"

The physiological and pathological effects of salicin though imperfectly investigated, seem to have gradually and slowly directed attention to those of its derivatives, and occasional paragraphs have appeared in current scientific literature, from time to time, upon salicylic acid for some years past. But only within a year or two—and the writer regrets that he does not know by whom first—German

writers have alluded to its peculiar and powerful effects as an antiferment, and antiseptic. As its peculiar powers are recognized, and its importance become possible and probable, the sources from which it had been obtained as a chemical curiosity became impracticable, in consequence of the small quantity which could be obtained from them, and the great cost in material and labor.

The next step in the progress of salicylic acid toward practical utility affords an excellent illustration of the progress in chemical knowledge made of late years.

The modern chemist appears to know, within certain limits, the combinations of the elements in organic substances very much as he knows the axes of crystals, and hence deduces their planes of cleavage. That is he knows how they will split up under given conditions, and what new arrangements of their elements are possible or even practicable. And further, he knows by pure reasoning upon facts, what new elements to introduce between the molecules of one combination to split it up by a new set of affinities into new combinations never before seen or reached, and which would have remained long unknown under the mere empirical researches of the older chemistry. The peculiar properties and reactions of salicylic acid as an antiferment producing a demand for it, the German chemists, Kolbe and Lautemann, sought for an organic compound which from its elementary composition might be split or dissociated into the desired new compound salicylic acid. This substance, whose molecule might be broken up, they found in phenol, or the so called carbolic acid, and it is a very curious circumstance—purely accidental so far as this writer knows—that a substance of well and long established character as an antiferment, should have offered to these chemists a molecular constitution so well adapted to be broken up into a still more powerful antiferment ; for there is no relation whatever, either in composition, or chemical, or physical properties between carbolic acid and salicylic acid, except in their effects as antiferments, and the two may,

so far as present knowledge extends, accomplish these effects by similar, or by altogether different reactions. The agent which the German chemists selected to resolve the molecule of phenol into other molecules, one of which should be salicylic acid, was dry carbonic acid or carbonic anhydride as it is called in the new chemistry. Thus from the action of carbonic acid on carbolic acid, salicylic acid is produced, a process which is about as far from the original willow tree as a source of the acid as can well be imagined, and yet a process which is as much the result of human knowledge based upon human research as that by which Le Verrier and Adama discovered the planet Neptune. It appears that where phenol or cresol, and perhaps others of the class of phenols, are combined with an alkali metal such as sodium or potassium thus forming phenol sodium (often called phenate of soda) for example, and well dried carbonic anhydride is passed through the dry powder of phenol-sodium heated to 100° to 250° C.=212° to 482° F., the reaction occurs which produces salicylate of sodium and other compounds. The salicylate of sodium thus formed is dissolved in water and decomposed by hydrochloric acid which uniting with the sodium by superior affinity, sets free the salicylic acid in the forms of small crystals. These crystals are washed and re-crystallised from a hot solution, and when dried form a crystalline powder of a light brown colour, somewhat resembling in colour the powder of pale cinchona bark. This is unbleached salicylic acid, and is probably pure enough for almost all, if not for all, the purposes to which the acid is at present applied to practical uses. The small proportion of colouring matter which it contains in this condition is held by it with great tenacity, and the future processes by which it may be obtained of various shades up to whiteness are so difficult, troublesome, and expensive, that they more than double the cost of production. This bleaching may be accomplished in various ways to a certain extent, but to get the acid quite white, Kolbe recommends that it be converted into an ether,

and this ether be again decomposed. In the writer's practice no good plan of decolourising has yet been reached, and as the decolourising has not yet been shown to be necessary or very useful, no great attention has yet been given to it. The acid imported from Germany at very high prices is occasionally quite white; but most of that sold at the more moderate prices of 2 to 3 dollars per ounce is of various degrees of whiteness, up to a very light cream colour with a reddish tinge. These varying shades of colour seem to show that bleaching processes, more or less effective, have been used with all the acid yet imported into this country; while, so far as known, none has been made here until the writer lately undertook it. Hence the entirely natural, or entirely unbleached acid, has not, so far as known, been yet used to any considerable extent; and it is a mere reasoning process based upon the quantity and qualities of the colouring matter in the well-made unbleached acid by which it is inferred that for most, if not for all of its present uses, this is as good as the more or less bleached product. If the well-made unbleached acid be found to subserve all the useful purposes to which the substance may be applicable, as is confidently expected by this writer; and if the substance of its importance in the arts, and in medicine, as indicated by the European authorities, the process of Kolbe will make it practically attainable in the necessary quantities at a far lower cost; whilst without some such process it would be of very limited use to mankind, whatever might be its powers. Whether bleached or unbleached, the acid is in minute broken aciculàr crystals, which give it the appearance of a granular powder, soft and smooth under the pestle or knife, but somewhat rough or resinous when rubbed between the fingers. This powder is inodorous and nearly tasteless. It has, however, a sweetish and astringent after-taste with slight acridity in the fauces, but none in the mouth; and though tasteless, it leaves a disposition or inclination to expectorate, which continues for some time

It is practically insoluble in cold water, but is very soluble

in hot water ; and the water of a hot solution retains when cold, in proportion to its coldness, from about 1 part in 250, to 1 part in 500 of the solution. The presence of various neutral salts in small proportion in the water render it far more soluble. Up to this time phosphate of sodium seems to have been chiefly used in Germany to render it more soluble in water for medicinal purposes, and it is said that 3 parts of phosphate of sodium will render 1 part of the acid easily soluble in 50 parts of water. It is much more soluble in alcohol and ether than in water. It melts at about 125° C.=257° F., and sublimes at about 200° C. =392° F.† In common with other similar acids it forms salts with the principal bases, but these seem thus far to be difficult to make, and their effects have not been investigated.

It is used for medical and surgical purposes either dry or in solution. When used dry it is sprinkled on to wounds, ulcers, or dressings in the form of very fine powder, in very small quantities, either simply powdered or mixed in various proportions with some diluent, such as starch. When used in simple solution either for spraying surfaces, or for washes or gargles, it is used in tepid solution of about 1 part to 300 parts of water. Where stronger solutions are required for washes, gargles, or to moisten dressings, 1 part of the acid and 3 parts of phosphate of sodium to 50 parts of water have been used. When applied to wounds it appears immediately in the urine.

Its alleged advantages over all other antiseptics are: First, that it is far more powerful and effective in smaller quantities ; and secondly, that it is, in all quantities necessary for complete effectiveness, entirely devoid of irritant action upon the living tissues, It is not caustic nor corrosive in any quantity, and never produces inflammation. In large quantities it may be irritant and painful, but rarely surpasses a stimulant effect, while it appears to be quite neutral in the very small quantities which are yet thoroughly effective ; thirdly, it is said to reach and prevent processes

of decomposition which are beyond the reach of all other antiseptics or antiferments. These processes are of two kinds, namely,—vital, or those in which living organisms have an important part, such as that produced by yeast and many of those which occur in putrefaction ; and chemical, or those which occur independent of vitality, as the production of the volatile oils in mustard and bitter almonds, the effect of diastase &c. Now, while carbolic acid and other anti-ferments are azymotic, or completely arrest or prevent fermentations of the first kind, they are powerless with the chemical processes. Salicylic acid is said to be more effective with the vital ferments, and equally effective with the chemical.

Fourthly, in quantities said to be thoroughly effective, it is entirely odourless and tasteless, and harmless, whilst it has no poisonous effect in any reasonable quantity.

It prevents or arrests the souring of worts, washes, and beers of the brewers, and prevents or arrests the putrefactive agencies which are so troublesome and destructive to the glue manufacturers; and these and similar trades have thus far seemed to be its principal consumers. Separate portions of fresh milk set aside to become sour, one to which 0·004 per cent. of salicylic acid was added, soured thirty-six hours later than the other. Urine thus protected was on the third day still clear, and free from ammoniacal odour.

Varying proportions of the acid added to accurately measured separate portions of sweet milk, and these carefully observed afterward until they sour—or, by the use of meat juice instead of milk, observed closely for signs of putrefaction—would offer good indications of the quantities required to arrest these varieties of fermentation.

Professor Thiersch, of Leipsic, used it upon contused and incised wounds, and in operations, with excellent general results, destroying the fetid odour of cancerous surfaces and pyæmic ulcerations. To such uses this writer would add the suggestion that for washing out the cavities of the

abdomen and chest after those operations which tend so strongly to septicæmia, solutions of salicylic acid would seem to offer very great advantages should it prove to be as bland and unirritating as it is stated to be, and yet so effective.

Most of these statements are summed up from the periodical literature of continental Europe during the past six months, little having appeared upon the subject in Great Britain, or in this country, and nothing having been done with it so far as known in either county.

In occasional paragraphs and allusions benzoic acid has been coupled with salicylic acid as being only second to it in effectiveness as an anti-ferment, and with similar advantages

These statements are collated and condensed here as being well worth attention in themselves, and in their relations to the phenomena of septic poisoning as already known. But they have a new significance, or at least suggest to this writer a new train of thought when viewed in connection with some researches now in progress and but just appearing in the periodical literature.

Experiments were made upon animals by the injection of measured quantities of septic blood. The blood of a healthy animal was allowed to become putrid. Increasing doses of this were injected into healthy animals until the amount necessary to cause death was ascertained. This quantity proved to be large, the animals recovering from all the small doses. Blood from the animal whose death was caused by injections of putrid blood was injected in increasing doses into healthy animals until the fatal dose was reached, and this dose was found to be smaller than that which killed the first animal. The blood of the second dead animal was used on healthy subjects in the same way as that of the first, and proved fatal in still smaller quantity. The experiments were continued upon the same plan until finally a point was reached when a very minute portion—the fraction of a drop perhaps—from the last animal proved fatal to the next, with more violent toxic symptoms

and a shorter course. The important indications of this series of experiments is of course the rapid accumulation of potency in septic poisoning. And the question put by this indication is not only as to how this potency accumulates, but also how to prevent and arrest it. Metroperitonitis and common pyæmia would, doubtless, unobstructed, accumulate potency in the same way without visible inoculation, and often do continue and acumulate even against the vigorous application of the best means of prevention yet known. No hypothesis can be constructed that will embrace the phenomena of septic poisoning, as they are now rapidly being investigated without including zymotic diseases and the cachexiæ, and none will account for the phenomena already observed without bringing it within the sphere of what is called, in some of its degrees or phases, fermentation. Hence, if the medical art is to keep pace with the progress of the physical sciences, physicians cannot afford to pass by such articles as salicylic and benzoic acids when offered by chemistry, without investigating their effects upon disease, even though not one out of ten should repay the labour of investigation, for it is certainly in this direction of researeh that medicine must look with greatest hope of success to control those abnormal vital processes which so far may be modified, but not stopped. For example ; Suppose a primary syphilitic or cancerous sore, or a diphtheritic patch, or even a cachectic pulmonary infection, while these are merely the localised phenomena of an external inoculation, or of an internal taint,—they must all be considered to partake of the nature of a fermentation, and by some such process invade the whole organism. Then sup- an anti-ferment, which when applied to any surface not covered by an impervious cuticle very soon appears unchanged, first in the blood, and then, in the secretions and secretions,—the manifest logcial antagonism of such substance to the diseased conditions becomes too important to be neglected, and the counsels of wisdom demand that its claims to such antagonism be disproved before it be dis-

missed. The question as to what may become of the cancer-cell, or of the less tangible precedent cause of it, or of the bacteria, or the precedent conditions which increase their fertility, under the well-directed influence of this class of agents, is, perhaps, the most important one in all medical science. And just in proportion as accurate research developes agents of greater and greater power, will be the prospect of better succes in treatment.

The phenols, especially the so-called carbolic and cresylic acids (phenol and cresol), were, and must always remain to be, most important additions to this class of agents, surpassing in power all that had been previously tried. And if now salicylic acid shall prove more potent than the phenols the further gain will be very great, and the researches upon it will again lead up toward future discoveries of still greater power.—*Chemical News.*

On a Case of Nearly Complete Deafness of One Ear, after an Apoplectic Seizure. By J. HUGHLINGS-JACKSON, M.D., F.R.C.P., Physician to the London Hospital, and the Hospital for the Epileptic and Paralysed.

That different kinds of ear disease occur with different kinds of nervous symptoms in different kinds of relation is well known. I have never known, however, complete deafness after apoplexy of any kind. I here use the word apoplexy in its wide sense, as including sudden coma from many causes. It is believed that disease of the labyrinth will cause grave nervous symptoms mostly vertigo with retching and vomiting. The labyrinthine disease, it is supposed, may be either primary—a hæmorrhage in it, for example—or secondary, there being increased pressure in the labyrinth, consequent on disease in the tympanum. I think, considering that there is what Knapp calls limitation of the field of audition, in the case which I am about to relate there is disease of, at any rate, the cochlea, and probably there has been a sudden hæmorrhage. It is not cer-

tain, however, that a hæmorrhage in the labyrinth, however sudden and extensive, would produce such deep apoplexy as this patient had ; his coma was like that from a large cerebral hæmorrhage. I think there may have been a separate lesion to produce the apoplexy. I suggest the possibility of another lesion because I do not think that any disease of the encephalon, which might account for the apoplexy, would produce deafness. I except, of course, disease of the auditory nerve or its nucleus ; but of disease of this nucleus I know nothing. It may be theoretically maintained that a hæmorrhage in the medulla would produce the two symptoms—deafness and apoplexy. But diagnoses without the anticipation of post-mortem examinations are not very profitable in case like this. My patient was well in general health when I saw him last, and I hope he is so still. His case is of sufficient clinical rarity to deserve record.

At 9 p.m. on Christmas-day, 1871, I saw with Dr. Fredrick Marsh, a man, forty-eight years of age, who was suffering from apoplexy. He was profoundly unconscious. I could find no local paralysis. I regret that I did not take any notes of the case. I never expected to hear of him again. We both of us beleived the man was dying. It *was* a case of apoplexy ; there was deep coma, and the question in my mind was whether the case was one of simple apoplexy or of large clot in the pons Varolii. Having seen a good many cases of apoplexy, I was able to come to the conclusion that I did not know, or, as I may be permitted to put it, that there was no evidence to warrant a diagnosis. I mention these things to show that, at any rate, the case was severe, and one likely to prove fatal. To my astonishment I heard, some weeks later, that the man was well again, except that he was deaf. As this was a rare sequel of apoplexy of any sort, I asked Dr. Marsh to send the patient to me. From the patient's wife, and from the examination of the patient I took the following notes on March 7 :—

On Christmas-eve, about 10.30 p.m., he blew his nose

very violently, and afterwards said he had pains from the back of his head down the spine to the calves. He then turned "on his stomach and on his hands and knees" with pain, seemed to faint, and then became unconscious. As I say, when I saw, him about twenty-four hours later, all I could determine was that the patient was apoplectic and, as I thought, dying. His wife told me that he came fully to himself in about fourteen days, but as he spoke in four days and seemed to know his wife, he was probably only partly unconscious the latter part of the fortnight. When he got out of bed at the end of the fourteen days he tottered, but only slightly. But he was deaf; at first he thought it was his wife who could not speak.

When I saw him his general health was good. There was no albumen in his urine. There was no paralysis and he did not reel. His optic nerves were normal. The only alteration made in him during the apoplexy was the deafness of the left ear.

He had for twenty or thirty years been considered deaf of the right ear, but *now* the right ear is the only useful one; he calls it his good ear, but he can, with it only hear when his wife puts her mouth close to it. The state of hearing on the "bad" side may be inferred from this state of the "good" ear.

He could not hear the tuning-fork placed on his forehead in either ear; when placed on the left mastoid process he heard it faintly. Moreover, he spontaneously remarked that it was the note C; this was engraved on the fork. He himself found out this and mentioned to me that he could hear the tapping together of two wooden stethoscopes better with his worse (left) ear, and that "it was very remarkeable" that he could hear the nipping together of his nails on the left side, and not on the right. A medical friend helped me in my examination, and reported that both membrana tympani were concave, but the right the more; the Eustachian tubes were open.—*The Medical Times and Gazette.*

CANADA

Medical and Surgical Journal.

MONTREAL, SEPTEMBER, 1875.

THE CITY BY-LAW TO ESTABLISH A BOARD OF HEALTH.

We have before us a copy of the by-law of the Corporation of our city "for the establishment of a Board of Health "in the city of Montreal, to enforce an efficient system "of vaccination, and to provide sanitary regulations for the "said city." This is the objectionable document which gave rise to the uproar and breach of the peace which recently occurred. While not in any way giving countenance to extreme measures, we must say that from the tenor of some of the provisions of this by-law we are not at all surprised that it had such a remarkable effect on the people who gave way to riot and disturbance. For instance, in clause 17 we read: "The Board of health shall have power to take effec- "tual measures to prevent the entrance of any contagious "or infectious disease into the city, *to cause any person in "the city infected with such disease to be sent to the contagious "disease hospital, or such other place as the said board may "determine upon.*" This particular clause (the italics are ours) if the by-law had been passed would have occasioned endless trouble, and would in many instances have been resisted. It is hard enough to suffer from disease which is preventible, but to have superadded the infliction of removal to a pest house without one's consent is to say the least highly objectionable and would be justly resisted. We are perfectly in accord with those who believe in isolation, but the measures for attaining that isolation should not be extreme or else they will not work.

Again, at clause 25 we read . "Immediately on a case of "small-pox or typhoid fever, or any contagious or infectious "disease being reported to the board of health one of the "medical officers shall visit it, and ascertain whether in his "judgment removal to hospital or such other place as the "said board may determine upon is necessary, and if such "removal be decided upon, the patient shall be immediately "conveyed to such hospital or other place in the ambulance "provided by the health department for that purpose." Let us take this home to ourselves and ask the question whether with Spartan stoicism we would peacefully stand by and permit the removal from our own nurturing care, of a wife or child and that at the dictum of an officer of health, a person whom we do not know, perhaps have never before seen, and in whom we have not the slightest confidence—but then as if to add insult to injury the sick person is placed in a filthy vehicle styled the city ambulance to be conveyed to a hospital which is yet a subject of contemplatiom and not of fact. Before any such by-law is enacted, the city must provide a suitable establishment, with all the appliances necessary and not a make shift such as exists in the Hall House in the mountain park. We have heard much of a fifty thousand dollar grant for the purpose of erecting a small-pox hospital, but so far there has been nothing but talk on the subject. The city council must give the citizens an earnest proof of its honesty in this matter, otherwise it will not be seconded in this attempt at sanitary reform. We do not suppose that the measures before us would have passed without very considerable modifications And it is to be regretted that it was brought up at all, unless at a full meeting of council, to be then coolly and dispassionately discussed, and all objectionable clauses struck out. It is greatly to be lamented that so much fuss has been made over the disturbance which occurred at the City Hall on a late occasion when this city by-law was introduced. The rioters were composed chiefly of persons without any stake in the city, many of whom went there we doubt not with

purposes of plunder. We believe that they would have been dispersed by a corporal's guard of resolute men and the honor and dignity of the city preserved. With regard to compulsory vaccination we think it is a matter for the Dominion Government to legislate upon and not the municipality of any one city or town. It is a subject of vital importance to the inhabitants of this growing country, and should engage the earnest and careful consideration of the highest legislative tribunal amongst us. Compulsary vaccination has in other countries almost stamped out the disease small-pox. We cannot conceive why our French Canadian fellow colonists are so averse to vaccination. Let any unprejudiced person stand at the door of any one of their churches, when the vast congregation is dispersing to their homes after service, and he will observe that every second face presented, exhibits the marks more or less of small-pox. Let him now turn to a catholic church of Irish or old country worshipers, and it will be exceptional to observe a single seared or pock pitten countenance. We will not seek to ascertain the cause of this difference, it is not a question of race or of religion, but of education. The French Canadian does not fear small-pox, heroically he will expose himself and those dear to him to the chance of contracting that disease, the possibility of preventing its spread through his family, does not appear to enter into his calculations, and should death remove a victim or two he with the Turk exclaims that God is great and the event was inevitable. This state of things proceeds from an imperfect knowledge of facts. Our French Canadian is proud of his origin and continually speaks of *La Belle France* as though no other country on the face of this globe existed where almost perfection was to be met with. We honor him for this love of the country of his forefathers, and as a British Canadian we confes to a like feeling as regards Merry England, but if he would put in practiae with the same earnestness the sanitary measures adopted by France in this question of vaccination, the coming race of French Canadians would be as free from the ravages of small-pox as are the people of old France.

THE CANADIAN MEDICAL ASSOCIATION.

In another column will be found Dr. Botsford's address at the opening of the eighth annual session of the above-named Association which for this year met in the city of Halifax, N.S. In the course of that address the worthy President drew attention to the subject of Registration of of Births, Marriages and Deaths, stating that in some of the Provinces of the Dominion the custom of registering these events does not exist. We question if there does exist in any of the Provinces a system of registration which can be regarded as reliable.

In Ontario, we believe, that some two or more years since, a registration act was introduced into the local house and became law, but the mischief of the thing is in leaving these matters to the local legislatures of each Province to act upon. The Province of Ontario finding that vital statistics were not attainable in the absence of a registration act, and recognizing the many difficulties of obtaining such an act from the General Government, decided on introducing and pressing such an act through the local house. Ontario has set us an example of progress for which she deserves a full meed of praise, and we trust that this action of our sister Province will be followed by the other Provinces.

In this Province we are badly off if this matter is left to the local authorities, as the powerful influence of the Roman Catholic Church will be brought to bear to crush out any contemplated move in the right direction. We were highly gratified to observe the reference made to this important subject by the President in his address, and still more so to notice that at his suggestion a committee of associates was named for the purpose of memoralizing the general government on the subject of a comprehensive act of registration of births, marriages and deaths for the whole Dominion, and he expresses a hope that this movement on the part of the Canadian Medical Association will hasten that most to be desired action of the Dominion Legislature."

ROYAL COLLEGE OF SURGEONS, ENGLAND.

We record with pleasure that R. F. Godfrey, M.D., Bishop's College, Montreal, and R. A. Stevenson, M.D., McGill University, passed the necessary examinations for the diploma, and were admitted members of the Royal College of Surgeons of England on the 22nd of July last. Dr. Godfrey is the eldest son of our esteemed fellow citizen Robert Godfrey, M.D., Professor of Hygiene, McGill University, who is at present travelling in Europe with his family.

A REMARKABLE CASE OF WORMS.

(*From the White Cloud Chief.*)

An old man named Christel Poff, of German descent, living in Missouri, in the locality known as "Cracker's Neck," has been for years afflicted with a disease, which took the form of inordinate thirst, that water would not allay. He grew worse from year to year, until finally he became partially insane, and imagined that all manner of reptiles were after him. About this time a celebrated physician of the Uroscopian school happened in the neighbourhood, and was called in to examine the case. Having applied the tests used in his practice, he pronounced it a chronic case of worms, and immediately set to work to compound a remedy from well known vegetable medicines. The mixture was composed of equal parts of castor oil wormwood, tansy, rue and assafœtida. After administering repeated doses of this compound, he finally succeeded in starting the patient to vomiting, when the whole cause of his disorder came to light. He threw up ten fish worms, three lamprey eels, seven crawfish, one mud turtle, five lizards, two tree frogs, one bull snake, a section of a snake fence. and the worm of a copper still containing sixteen coils. He at once complained of being better, and has steadily improved ever since.

He has no idea how or when these things got into his stomach, but remembers having taken a drink of water when a boy, which act was performed by lying on his stomach.

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ORIGINAL COMMUNICATIONS.

On the Pathology of Miner's Lung. By Wm. Osler M.D., Prof. Institutes of Medicine, McGill College.

(Read before the Medico-Chirurgical Society)

Situated as we are, at a considerable distance from mining centres, it is only occasionally that cases of disease resulting from the inhalation of coal dust are brought before our notice. Having lately had such a case, I take this opportunity of laying it before you, together with a hitherto undescribed specimen from the Museum of the College, and also, other specimens illustrating the pathology of lung pigmentation. The man from whom I obtained the lungs of the first case I am about to describe was a powerful, well built Scotchman, 36 years of age, who died under my care in the small-pox department of the General Hospital of Variola maligna, after an illness of five days. Throughout the attack there were no symptoms referable to disease of the lungs; the breathing, it is true, was greatly accelerated, but not more than is usual in cases of hæmorrhagi small-pox.

Post-mortem examination, four hours after death—On opening the thorax the lungs appeared very full in volume, and instead of collapsing, projected slightly forward. The lower lobe of the right lung was adherent to the pleura in front and laterally by thin, delicate bands, apparently not of old date. Left lung and upper part of right free. No fluid in the pleural cavities. On removal from the chest both lungs presented over their whole surface a uniform, deep blue-black colour; so general was it, that not a trace of the

natural hue of the organ remained. At the apices and in front the colouration was not as intense as in the posterior regions, but here it was exaggerated by the hypostatic congestion existing in these parts. Both lungs were crepitant throughout and floated in water. Cicatrices existed at the apices. Several patches of collapse were noticed along the anterior free margins. Pulmonary pleura somewhat opaque, and thickened to such a degree that even with a lens the air cells could not be seen through it, except at one border where they were much dilated and emphysematous. At spots, probably corresponding to the interlobular septa, the colour was darker than at others. On section the organs presented an intensely black colour, and the serum which flowed from the cut surface was of an inky hue. The posterior lobes were sodden and œdematous, but still crepitant, and floated in water. Here and there throughout the substance small patches of apoplexy—the largest the size of a walnut—could be seen. When squeezed a fluid like ink could be expressed, which left a dark stain upon the hands. Repeated washing of a portion of lung diminished considerably the intensity of the colouration. On the surface of a portion thus treated different shades of pigmentation can be seen. Round or linear patches, ranging in size from a pea to a hazel-nut, of an intensely black colour exist in large dark, slate grey areas. In many of these spots the air cells can still be detected, in others they appear to be obliterated, and the section in this case is uniform, not porous. On careful dissection I was able to demonstrate in nearly every instance that these spots had a small bronchiole penetrating them, and this can be seen in several of the specimens. These patches when excised and placed in water always sank, even when air cells could be seen in them. Many such existed just beneath the pleura and their situation was easily told, not only by the deeper colour at these localities, but, also, by the fact that a slight superficial puckering sometimes existed. To the feel they were also firmer, more solid, than the other parts of the lungs, not so much so,

however, as the apoplectic spots. The portions of lung tissue intervening between these intensely pigmented areas were of a uniform slate grey colour, studded with the hæmorrhages already mentioned. The fluid expressed from these pieces was very dark. The air-cells when examined with a lens appeared almost universally emphysematous, more especially those in the upper and anterior regions of the lungs, occupying a superficial position. Certain limited sections of the lungs, generally situated superficially, appear denser than others, the air cells are visible but very small, and the amount of alveolar tissue in proportion to the air space is abnormally great. This may be due, of course, either to collapse or to an increase of the fibrous elements in the walls of the air cells. I am inclined to think it due to the latter from examination of the air cells, and also after comparison of it with several genuine patches of collapse, which existed at the anterior free borders. Several small cavities, the largest about the size of a pea, containing air were met with, probably large emphysematous cells, as they were quite devoid of any definite wall, and the air vesicles opened directly into them. The tissues of the larger bronchi preserved their natural colouration, but as they reached their ultimate ramifications, when diminished to the size of a crow-quill, the mucous membrane became of a deep black colour, and the surrounding elements of the walls were very generally pigmented. The bronchi were filled with a frothy mucus, but the mucous membrane was not thickened, nor were there any evidences of chronic bronchitis. The *tunica adventitia* of the blood vessels—large and small—was impregnated with the dark particles and the transverse section of an artery presented three zones of colouration, a dark one corresponding to the *adventitia*, a white fibrous one to the *media*, while the red central zone occupying the lumen of the vessel is made up of the blood corpuscles. The bronchial glands were firm, not enlarged, and presented an excessively black surface on section.

Microscopical examination: first, of the dark coloured

serum, which can be so readily expressed. A variety of cellular elements are here met with, and the colour is seen to depend upon black granules, partly free, and partly inclosed within the cells. A difference would seem to exist in this respect as to whether the drop examined was furnished by one of the darker spots, or from the intervening greyish portions; in the former case there are more free granules, in the latter they are generally inclosed within corpuscles. These carbonaceous particles range in size from almost imperceptible molecules up to portions the 1-12000 of an inch and over. The latter are, as a rule, angular and do not exhibit the Brownian movement. In addition, pieces are occasionally met with of an elongated form, and of a brownish red colour at the edges, or, if thin enough, over the whole mass. Some of these can be seen with the naked eye, and I measured several more than 1-250 of an inch in length (See fig. 1). Other very peculiar forms were noticed, which, from the regularity of their outlines, I believe to be structures connected in some way with the coal, but upon this point I lack the necessary knowledge to decide. The cellular elements found in the expressed serum may be arranged as follows:—

Fig. 1. x 100.

I. Groups of flat cells each with a distinct nucleus, the boundaries of the cells, in many instances, being ill-defined, or sometimes similar cells are grouped together upon a portion of membrane. Free in the field are others identical with the individual ones composing the above groups. They are about the 1-1200 of an inch in diameter, nucleus large and sharply marked, borders often indistinct, cell substance granular, friable, often broken away in part, leaving the nucleus exposed. The free nuclei of these cells also are present in numbers. Carbon granules are only occasionally met with in these corpuscles, and I think they must be regarded as the original cell elements of the alveoli, and perhaps, to a large extent deriviatives of them in a slight catarrhal process.

II. White blood corpuscles, distinguished from the former by their smaller size and less distinct nucleus. They only occasionally contain dark granules.

III. Corpuscles in which the bulk of the carbon is contained, and upon whose presence the black colour of the expressed juice in most instances depends. These are very variable in size, and may, on the one hand, approach the colourless blood corpuscles, and on the other, attain to five or six times their diameter. See figure 2 (*a*).

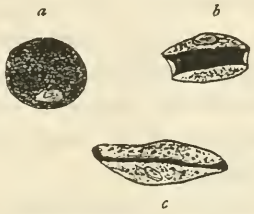


Fig. 2.

In shape they are usually round, sometimes oval, occasionally irregular, very rarely approaching the spindle form. Inside all of these the carbon particles exist in extraordinary numbers, filling the cells in different degrees. Some are so densely crowded that not a trace of cell substance can be detected, more commonly a rim of protoplasm remains free, or at a spot near the circumference, the nucleus, which in these cells is almost always eccentric, is seen uncovered. The contained carbon particles are, for the most part, angular, and when not too thickly massed together, a reddish brown colour can be observed in each. In a few of them comparatively coarse portions of coal are found imbedded, stretching the cells to their utmost limits. At fig. 2 (*b* and *c*) such cells are represented, and in the latter the corpuscle has evidently accommodated itself to the shape of the piece of coal. One most curious specimen was observed: on an elongated piece of carbon three cells were attached, one at either end, and a third in the middle; so that the whole had a striking resemblance to a dumbbell. I could hardly credit this at first, until, by touching

the top-cover with a needle and causing the whole to roll over, I quite satisfied myself that the ends of the rod were completely imbedded in the corpuscles, and the middle portion entirely surrounded by another. So strong was the attachment that I failed to separate any of the corpuscles by pressure on the top-cover and other manipulations. Another corpuscle was seen entirely surrounding the end of a small rod, forming a miniature drum-stick, the handle of which was twice as long as the diameter of the corpuscle.

IV. Decolourized red blood corpuscles, which are very numerous in all the specimens examined. Many of them are aggregated together into masses, casts, probably, of the air cells pressed out of the apoplectic centres.

V. Amyloid corpuscles, of which a few well-marked specimens were observed.

We come now to the examination of the lung substance itself, and first of the small dark areas. On teasing portions of these, unless done very finely no structure can be made out, uniformly dark masses present themselves. If, however, the elements are more minutely separated a dense interpenetration by small dark granules of all the textures is observed. We have not here to deal with cellular bodies containing the pigment, for it is free in the interstices of the tissue, and few or no cells can be detected. So thickly is the pigment scattered over the structures, that even an isolated fibril of elastic tissue is with difficulty seen, on account of the granules attached to it. The air cells seem obliterated by the excessive accumulation of pigment and the great increase of the connective tissue, and hardly a trace of them is met with. As before mentioned, the fluid expressed from these parts contains only fine granules with an occasional cell. Thin sections show very well how intense the pigmentation is, but yield very little information as to its distribution, for a uniform black surface is presented, which only here and there in irregular spaces is penetrated by the light. To-

wards the borders, where the tissues are not so densely infiltrated, some of the carbon is seen to be contained within round corpuscles, and also confined in very irregular, somewhat spindle-shaped areas, but whether these latter are connective tissue corpuscles or not is difficult to decide. From their extreme irregularity and the number of their processes it is probable they are not, but only represent the arrangement of the carbon granules among the elements of the tissue. All the coats of both bronchioles and vessels in these areas are impregnated in the same way, but I have not found any of the latter obstructed by accumulations of coal dust.

In passing to the consideration of the histology of the less pigmented and by far the largest section of the lungs, it may be mentioned that a considerable part of the colouration in this is due to carbon granules retained within the cells already described. These exist in abundance throughout the whole substance, and are everywhere present, both in sections and in teased preparations. They are found chiefly in the interstices of the stroma and along the course of the alveolar septa, occasionally, also, lying free in the air cells. Nothing further need be added to the description previously given of them.

Fig. 3. (x 450.)

Secondly, isolated particles of carbon are tolerably numerous, even in situations which, under the microscope, look on superficial examination to be quite free. The membranous walls of the alveoli are constantly seen dotted over with black granules, though it is rare to see any occupying the cells upon it, and in the same way the interstices of the fibrous stroma contain them in abundance. The

manner in which these small particles gain entrance into the stroma may sometimes be observed, as sketched in figure 3, representing the margin of an air cell. Particles of various sizes are there seen, some attached to the free margin, others imbedded in its substance, while others again occupy positions a considerable distance in. A third situation is the point of junction of the fibrous septa, where, in many instances, quite a dense accumulation is met with in the form of fine granules, as is seen at fig. 4.

Fig. 4. (x 100.)

A fourth and most favourite locality is the interlobular connective tissue, which cannot be considered apart from that of the vessels and bronchi. Here, as can be seen with the naked eye, the deposit is excessive, and the blood vessels are readily followed as dark, irregular branching lines. The examination of sections of vessels show that in most instances the *adventitia* alone is effected, while the *media* and *intima* remain quite normal. Similarly it is only the loose fibrous coat of the bronchi in which the pigment occurs, though occasionally a transverse section of a bronchice is seen pigmented throughout.

With regard to the alveoli themselves no very great deviation from the normal structure was noticed, save that in many places an increase in cellular elements, the result of a catarrhal process, had taken place on the membranous wall. In some situations, also, a marked thickening of the

alveolar septa had occurred, which was perceptible to the naked eye and has been already referred to in the description of certain areas in which the air cells were much diminished in volume. This was rendered very evident by comparing specimens taken from these areas with others from a healthy lung, or even from more natural sections of the same one. In one or two localities isolated air cells, or small groups, were found filled with colourless tenacious plugs (very similar to those of croupous Pneumonia), consisting of an extremely delicate fibrillar network enclosing various cellular structures, among which those described under (1) and (3) of the elements found in the expressed serum of the lung were the most numerous. The large ones, filled with carbon granules, in some instances gave a dark tint to these small masses.

The most superficial layer of the pleura, composed of a fibrillar membrane upon which the pavement epithelium lies, can be stripped off as a clear transparent structure quite devoid of pigment. Immediately beneath this, however, there is a fibrous layer densely crowded with carbon granules, both free in the tissues and contained in the large round cells, which latter are very abundant in this situation. Oddly enough, just in teased portions from this sub-pleural region some of the coarsest particles of carbon were obtained.

I have been fortunate enough to procure for examination several other specimens illustrating different degrees of pigmentation in the lungs. The first of these, comprising the lower lobe of one lung, was obtained from a Cornish miner who died under Dr. Howard's care some years ago in the General Hospital of Pneumonia. The notes of the case have unfortunately been mislaid so that I am unable to state the condition of the other parts of the organ. Superficially, the whole lobe is of an intense blue black colour, due to the accumulation of the carbon beneath the pleura, and this deposition varies in thickness in different parts, in some forming a very thin layer, while in others it has a

diameter of from two to four lines. At one or two places it is absent, one spot especially, near the root, and through these the light coloured portions of the lung can be seen. On section, irregular spots of an exceedingly black colour are seen scattered over a very pale lung substance. The relation between these two areas of colouration is not the same throughout; towards the root and in the portion of the lobe which rests on the diaphragm the dark exceed the light, while in the posterior and lateral regions the reverse holds good. Closer examination shows that the favourite localities for the pigment are about the vessels and bronchi, and the interlobular connective tissue, which can be seen as dark bands stretching from the pleura into the substance. Very many of the dark areas are firm and indurated, presenting a smooth hard surface on section, with occasionally the remains of a bronchus or vessel in the centre; while others of the same pitchy hue are made up of emphysematous air cells with thick hard walls. The portions of the lobe free from pigment look healthy, the air cells are however emphysematous at the margins and beneath the pleura. Many bronchi and vessels are wholly devoid of any pigmentation at their circumference, others of the former have somewhat thickened walls and from several tenacious plugs were extracted.

The bronchial glands, three in number, attached to the root, are firm and of an intensely dark colour.

In the microscopical examination it was found exceedingly difficult to tease up pieces from the dark indurated areas, on account of their extreme hardness and brittleness. They are composed entirely of fibrous and elastic elements, in the interstices of which the carbon granules are so densely arranged that it is only from the margins, where the fibrils project, that any idea of the structure can be obtained. Sometimes, near the borders, or in a less dense portion, a trace of an air cell is found, but as a rule, all remains of them are obliterated by the overgrowth of the fibrous tissue. Very few cellular elements are found in these localities,

and those present are small and do not contain many carbon granules. On the other hand, in and about many of the less indurated areas, the cellular elements are present in abundance, though not so large and more angular in shape than in the former case. This may be accounted for, however, by the fact that this specimen has been in spirit for over ten years, while the other was put while fresh into 1 per cent. solution of potassium bichromate. Cells, large and small, containing coarse particles of carbon or even distinct fragments are numerous. In some instances a process of atrophy, or shrivelling, appears to have gone on in these cells, for elongated portions of carbon were seen enclosed in a contracted mass which bore some resemblance to the remains of a cell; or again, others were imbedded in a yellowish coloured substance with irregular hard outlines as though a deposition of inorganic matter had taken place about them. Free in the field were many small angular black particles, also others much more minute. In this case coarse particles of silex were quite as common as those of carbon, and in one place an aggregation of 15–20 attached to a piece of lung tissue was noticed. None of these were observed within cells. The dark emphysematous localities, which usually have a small bronchus in immediate connection with them, are composed of a variable number of dilated air cells, all of a jet black colour, and with hard fibrous walls. I dissected out a small spot about the size of a cherry stone containing five emphysematous air cells and teased it up very finely, but was unable to find anything like an alveolar membrane, only fibrous tissue everywhere covered by dark granules. In other regions where the pigmentation was less profuse, a definite increase in the fibrous elements in the walls of the air cells can be seen. Instead of the isolated fibres of elastic tissue which in the healthy lung run across the alveolar wall and serve to strengthen it, we have here in many instances a perfect network. Nor are these to be mistaken with their sharp hard outlines for the collapsed capillary vessels, of which traces in the form

of irregular lines can be seen in normal alveoli. The infiltration of the pleura in this case, also, is limited to the deeper layers, the uppermost—basement membrane and epithelium—remaining free. The bronchial glands are unusually hard and fibrous, and microscopical examination shows an enormous overgrowth of the connective tissue with a corresponding diminution in the cellular elements. The few which are present contain numerous carbon granules.

The third and fourth cases do not properly come under the heading "Miner's lung," but they serve to illustrate several points in connection with the subject, and aid, also, in the understanding of the general pathology of lung pigmentation. The third specimen was obtained, like the second, from the Museum of the College, and of it I have unfortunately a still scantier history. All my information is confined to the brief record on the label, "Melanosis:" It is a piece about the size of the fist, representing, I take it, a portion near the apex, and is of a bluish black colour externally. The pleura covering it is thickened, in places white and fibrous, at others intensely dark and fully one-fourth of an inch in thickness. The colouration is very uniform, but on section is seen to be chiefly superficial, extending, however, into the interior in the form of bands, between which the lung tissue retains its natural hue. To the touch the whole mass is firm and indurated. The bronchi are thickened and in some cases surrounded by circles of pigment. Several small caseous masses encapsulated in fibrous tissue, deeply pigmented, occur at the apex. The microscopical examination shows that the pigment is chiefly interspersed as small granules among the fibrous elements of the thickened pleura, and in the bands that pass from it into the lung substance. In the former situation sections demonstrate that the pigment is distributed linearly, often in alternate layers, or interspersed between fasciculi of connective tissue. There is a marked absence of the small angular particles of carbon, and very few pigmented corpuscles were met with.

The fourth specimen is from a man, 65 years of age, who died of Bright's disease in the General Hospital under Dr. Ross, to whom I am indebted for the portions of lung. As far as could be ascertained this man had never been employed in mines, nor in situations where he would have been exposed to a sooty atmosphere. An interesting point in connection with this case is that the pigmentation of the skin was deranged ; he presented several large patches of Leucosis.

In the portions of lung given to me for examination, the pleura certainly is abnormally pigmented for a man of his age. In parts the dark colour is almost uniform, but the general arrangement is in round, often irregular shaped spots, which are tolerably closely set over the surface and do not correspond to the interlobular septa. On section they are seen to be quite superficial, in most instances confined to the pleura, though sometimes dipping into the lung substance in the form of bands, or else involving the air cells immediately beneath, in which case, these are invariably emphysematous. The lung substance itself is but little affected, only here and there presenting a dark appearance, due to the accumulation of pigment about the vessels and in the interlobular connective tissue. The dark subpleural areas contain a tolerable number of the large cellular elements, but most of the pigment is free among the fibrous tissue. Where the pigmentation extends into the subjacent air cells the septa are dark in colour, and occasionally the alveolar wall was seen to have irregular patches of pigment upon it. Cells containing carbon are also very common in the alveoli, which have been involved in a pneumonic process, and are filled with cellular elements. Sections made parallel to the pleura in these situations show very well how the alveolar septa are covered with pigment, partly free and partly intra-cellular; while the air vesicles are filled with a fine granular substance and cells, many of which contain carbon and are identical with those in the alveolar septa. Small angular particles of carbon are com-

mon in the field, but no coarse ones, like those in cases 1 and 2, were met with. An interesting fact, which will be referred to hereafter with reference to the probable origin of the pigment in this case, is that extravasations of blood were seen in the sub-pleural region, and usually in the vicinity of the dark areas. On several occasions I saw at the edges of small teased portions of an intensely black colour the reddish brown remains of an extravasation. The small pigmented areas in the lungs presented nothing remarkable, they were chiefly in connection with blood vessels.

From the description of the two first cases it is evident that we have here to deal with the early stage of the disease known as Miner's Lung, or, to give it the scientific appellation, Anthracosis. I say the early stage, meaning that the degenerative process can hardly be said to have commenced, and had not these men died of intercurrent affections, they might have lived for years under favorable hygienic conditions. No doubt, however, the point had been reached where further exposure to the impure air of the mines could only have resulted in bringing about serious lung trouble. Ultimately, as the records of *post mortems* show, there arise extensive areas of consolidation—carbonaceous Pneumonia, as it is called,—with numerous cavities containing an inky coloured fluid, and at last death takes place with many of the symptoms of chronic Phthisis, a peculiarity in some cases being the expectoration of a dark colored mucus. In the cases under consideration the intensely black consolidated spots may be regarded as the first step in a series of degenerative changes. Such general infiltration of the tissues by a foreign matter cannot be without a strongly irritating action, the final effect of which would be a proliferation of the epithelial and connective tissue elements, with the result of obliterating the air cells and the formation of firm indurated areas. The larger these become, the more the cellular elements participate in the process, so much the more likely will they be to soften at the centres, and finally form cavities. The indurated spots

in our specimens were remarkable by the absence of corpuscular elements, and the same would probably hold good in larger areas ; still, even in these, as occurs in Cirrhosis of the lungs, a molecular degeneration goes on in the centre, with the formation of a cavity. In the lungs of all individuals who die of this disease these cavities, which are no doubt often bronchiectatic, are described, surrounded by indurated areas, while the comparatively healthy sections are intensely black and emphysematous. Several cases I find recorded of miners having died of intercurrent affections, in whom the lungs presented an appearance similar to what has been described, viz : uniformly dark in color, but with patches of variable size of a much more intense hue, the lung texture itself being healthy, or a little emphysematous. In some instances the continual inhalation of the dust in mines would appear to produce very little effect, for cases are mentioned of miners exposed for years to the same influences to which others succumb, and yet who were but slightly affected. Predisposition to lung disease is an important factor here, and it has been found that where this exists, they die at a much earlier age than those without this hereditary weakness, which need not, however, necessarily be a true tubercular diathesis. Indeed, in reading over the records of the *post mortems* in this disease, one is struck by the absence of any mention either of true tubercles or caseous masses, and in neither of the cases before us do these elements occur. It was suggested by Dr. Wilson Fox, at a discussion on this subject at the Pathological Society a few years ago, that exposure to the irritating substances in the air of the mines might directly induce the production of tubercles, and that the fibroid masses represented the final change which these had undergone. Against any such view the cases here speak strongly. There is nothing in these lungs which would be called a tubercle by a follower of Lænnec or of Virchow, and yet, if the process was one in any way connected with tuberculosis, we should expect just in this early stage to find traces of it ;

but instead, we find at the outset of the disease what is spoken of as occurring at the close, fibroid consolidation ; the difference consisting in the extent to which it has gone, and in the absence in the former of secondary changes. In its essence the whole disease would appear to consist in an overgrowth—a hyperplasia—of the fibrous tissue of the lungs, induced by the chronic irritation to which they are subjected by the inspired particles of coal dust, a veritable Cirrhosis, or, as it might appropriately be called, the black Cirrhosis of miners. This certainly is the most natural view to be taken of these two cases, and accords best with their general and histological characters. From the fact that in many instances small bronchioles are seen in connection with the fibroid masses we may infer that about them the process begins, and spreads to the surrounding alveoli. In other places the *adventitia* of the blood vessels, and the interlobular connective tissue furnish starting points. We are still in the dark as to how all this takes place, how the air cells become converted into firm, hard areas—fibroid substitution as Dr. Bastian calls it, or why, again, in the same lung, some of the intensely dark spots are solid, while others are emphysematous.

Before referring to the other specimens, which do not, I believe, come in the same class, a few words must be said upon the general subject of lung pigmentation. Briefly, two sources must be admitted, an internal and an external ; in the former, the pigment is transformed hæmatin, and the affection is termed *Melanosis;* in the latter it is inhaled carbon, and the resulting disease is *Anthracosis*. It is only within the last ten or fifteen years that unanimity has been reached on this point. Up to this time many of the leading German and French pathologists refused to recognize the latter source. Even Virchow as late as 1859, basing his observations on portions of miner's lung sent him from Edinburgh, came to the conclusion, though he describes angular particles of carbon from the same cases, that a transformation of the colouring matter of the blood

in repeated small hæmorrhages would account for the whole pigment. The English observers (and with them several French), one and all, as far as my reading goes, from Pearson, who in 1813 first described the affection, took a more practical and common sense view, and attributed to it solely an extraneous origin. Having many more opportunities of observing the conditions under which miners worked, and knowing the foul, sooty atmosphere of the mines, they were led to connect cause and effect, the dust with the disease, and so arrived at the truth years before the Germans, to whom, however, the credit is due of having placed the fact upon an histological and experimental basis. They demonstrated the presence of dotted cells and other structures characteristic of vegetable tissue in the coarser particles obtained from the lungs, and, also, proved that the lungs of animals might be made of a dark color by exposing them for a length of time to a sooty atmosphere. I have been fortunate, also, in these cases to obtain positive evidence of the external origin of the pigment. At fig. 5 a portion of coal is represented which

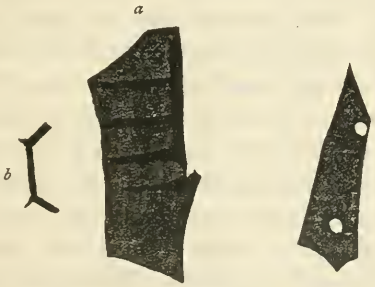


Fig. 5. (x 300.) Fig 6.

exhibits the characteristic appearance of scalariform tissue. This was a very thin flake with distinct cross bars, three of which occupied the whole breadth of the piece, while one other is less evident. The thin spots between the bars were of a brownish red colour. By manipulating I managed to break it across just below the third bar, and was then able to obtain the transverse section, which is given at

fig. 5 (*b*), and makes it more than probable that this was a portion of a scalariform duct rendered prismatic by pressure, a common structure in ferns, and also plentiful in cannel-coal. Another piece, seen at fig. 6, with two round holes, represents a portion of a dotted cell of fir wood.

To consider now this subject of Anthracosis more closely, and endeavour to obtain an insight into its rationale. A comparison of the lungs of a child with those of an adult, or, better still, of an old man, shows that the natural colouration of these organs undergoes a change as age advances, the rosy tint of childhood giving way to a marbled slate-grey, interspersed with patches or lines of an intensely dark colour. Similarly the lungs of an animal present a marked contrast to those of an adult man ; and there can be no doubt whatever that in great measure this change in colouration depends upon the inhalation by him of the products of imperfect combustion of fuel of various sorts, gas, &c. This has been called physiological Anthracosis, in contradistinction to the more extreme condition met with among those who work in mines, and other situations in which the air is charged with soot and coal dust. Against the entrance of these noxious matters into the lungs the nasal orifices are furnished with numerous hairs, which, together with the mucus of these passages, retain a considerable quantity of the dust and coarser particles met with in the air. After a lengthened sojourn in a smoky atmosphere how common it is to see the nasal secretion quite black upon the handkerchief. Still, even if the particles escape retention at the orifice, as they all do when the breathing is carried on *per orem*, a further provision is made for their expulsion when they reach the bronchial membrane, the cilia of which are in constant motion, producing currents which set externally, and slowly and surely convey the mucus with the contained granules towards the larynx, whence they are readily coughed up. In ordinary inspiration the volume of tidal air does not probably reach further than the larger bronchi, and the coarser particles in this

case, if they reach the alveoli at all do so by the force of gravity ; but in the stronger respiratory efforts, just such as miners by the very nature of their work must constantly make, many attain this situation, and, as here no provision is found for their expulsion, nature provides that they shall at any rate be placed in less injurious localities. In what way this is effected, how the small angular particles which can be seen on the alveolar walls penetrate into the interior, has not yet I believe received a satisfactory explanation. Sharp, angular bodies are said to have a habit of working into soft textures, especially if there is any impelling force, however slight, behind ; but what of the infinitesimal particles that we find throughout these lungs, can the same apply to them ? Certain it is, however, that once fixed in the alveolar wall they resist all attempts at removal, and they may be seen, as at Fig. 2, in all stages of progress towards the interior. In their further distribution they follow exactly the course of the lymphatics, and the tissues in their immediate vicinity ; where these are most abundant there the pigment is in the greatest quantity, as about the connective tissue of the vessels and bronchi, the interlobular septa, and, above all, just beneath the pleura. Once inside the lymphatic vessels a large proportion of the granules is carried on to the glands at the root of the lung, and is there permanently fixed in the cellular elements, hence the intensely dark colour of these in most persons over fifty. This fixation of the carbon granules in cellular bodies is very remarkable, and must be regarded as an effort of the economy to render harmless what might otherwise be very irritating substances. In the greater part of the lungs in the first case the pigment was contained within large cellular elements, belonging to the amœboid class of connective tissue corpuscles, and in the other cases they were by no means uncommon. These were unusually large, twice or three times the size of the colourless blood corpuscles, and very abundant, as if the supply had been equal to the demand. This pathological infiltration of corpuscles

with carbon appears to interfere just as little with the performance of their functions as does the physiological, so common to many connective tissue corpuscles of man and the lower animals ; for in the air cells which had been involved in a pneumonic process, and among the epithelial elements with which they were filled, these same large corpuscles occurred, evidently having migrated from the surrounding tissues, in which sections demonstrate them to be plentiful. To show the remarkable aptitude of cells to take up granules of various sorts, and, also, to demonstrate the rapidity with which the lymphatic glands are affected, I performed several simple experiments, of which I shall mention two :—

Experiment I.—Into the axilla of a two days' old kitten m iii. of a strong solution of Indian ink were injected, and into the right lung of the same animal a similar quantity was injected through the pleura. The kitten was killed twenty hours after and the parts carefully examined. In the axilla there was a spot the size of a marble of a dark black colour, composed chiefly of connective tissue and fat. On examination of teased portions it was seen that the particles of Indian ink were either free in the interstices of the tissue, or else contained within the numerous leucocytes, white blood corpuscles, with which the tissue was inundated These were specially abundant along the course of the. puncture, and in this situation all the leucocytes were loaded with the dark granules. The spindle shaped connective tissue corpuscles did not contain any.

On removing the sternum a dark lymphatic gland was seen, and close to it a much smaller one. Nearer the manubrium was another black spot, apparently only an aggregation of dark granules. Where the point of the syringe had penetrated the thorax the layers of the pleura were united by a dark round band about two lines in diameter. Under the dark spot on the pulmonary pleura was a portion of inflamed lung substance the size of a large pea of a dark red colour. Examination of the dark spots on the pleura

and the intervening band showed tissues everywhere infiltrated with small and large cellular elements, in which the bulk of the pigment was held. The small corpuscles in appearance and size correspond to colourless blood corpuscles, which modern pathology has demonstrated leave the vessels in large numbers in the early stage of inflammation. Among these some were sparsely, others densely, crowded with dark granules. The larger cells were more than twice the size of the ones just described, and belong to the group of connective tissue corpuscles. Many were rounded or oval in outline, and these contained the greatest number of granules, while elongated, spindle shaped ones rarely contained any. Changes in outline, amœboid movements, were seen in most of these corpuscles. In a portion of the pulmonary pleura which was under the microscope a small net work of lymphatic vessels was rendered beautifully clear by the number of dark granules inside them. Unfortunately I was unable to sketch it, as on changing the object-glass for the purpose I accidentally let it fall upon the slide and damaged it for any further use. The curious phenomenon was seen in teased portions of the inflamed lung of cells containing red blood corpuscles. A considerable number of these were met having from six to ten corpuscles in their interior, others presented only a diffuse colouration.

Experiment V.—Into the right thorax of a four weeks' old kitten m x of a solution of Indian ink were injected, and the animal killed thirty-six hours after. A dark spot on the costal pleura corresponded to the point of entrance of the needle, but the layers of the pleura were not adherent. The lower lobe of the right lung presented a dark firm mass, about the size of a walnut, occupying its interior, and scattered round it were several other small dark spots involving both pleura and lung substance. The sub-sternal glands were slightly coloured, and those at the bifurcation of the trachea were dark superficially. Examination of the dark mass in the lung showed the air cells in a condition of inflammation, and everywhere crowded with leucocytes, in-

side which almost all the Indian ink granules were contained. So numerous were these cells that even in very thin sections hardly anything could be seen. At the margins of the healthy and inflamed portions larger corpuscles occurred, which were also filled with the dark granules, and a few were noticed containing red blood corpuscles. The lymph corpuscles of the glands, sub-sternal and bronchial, especially in the superficial region, contained numerous pigment granules.

These experiments serve to show how quickly irritating materials are taken up by cellular elements ; and it is in precisely the same way that the carbon granules which reach the parenchyma of the lungs are fixed in the connective tissue corpuscles and so rendered harmless. In experiments 2, 3, and 4 the substernal glands were also more affected than the bronchial, as in these cases the pigment was chiefly about the pleura, and adhesions having taken place between the layers, the lymph bearing the Indian ink granules was conveyed in the vessels of the parietal layer to the glands under the sternum.

In cases three and four the pigmentation is not so extensive, and there is not the same certainty as to its source. In the absence of any history it is hard to say whether in the former case we have to deal with a condition produced by the inhalation of dust, or whether it is an excessively pigmented piece from an old man with chronic lung affection. The general firmness of the piece, the thickened pleura, the existence of caseous masses, and the absence on microscopical examination of large particles of carbon favour the the latter view ; and if so, the pigment is to a large extent melanotic, i.e., proceeds from the hæmatin of the blood. Of course in all these cases a double origin may usually be attributed, for the process of physiological Anthracosis goes on constantly, whether there be disease in the lungs or not ; but we have learned to regard the pigmentations occurring in the indurated areas about cavities or caseous masses as specially of blood origin, in as much as they are met with

in young children, in whom an Anthracosis is out of the question, and, also, because the extravasations are found in all stages of transformation from yellow up to a jet black. In the last case I think there is still less room for doubt. Here the irregular distribution of the pigment in circular patches, not following the interlobular septa beneath the pleura, to which situation it was in great part confined, a situation, moreover, shown by Virchow to be specially prone to extravasations, but, above all, the detection of extravasations in and about some of the pigmented areas, make it tolerably certain that this is a melanotic process. Whether this had any connection or not with the derangement of pigmentation in the skin, as was suggested, may be questioned. Melanosis as it ordinarily occurs is a very different thing from the physiological process of pigmentation. For the former to take place there must be either long continued congestion, amounting almost to stagnation, or else extravasation, under which circumstances the colouring matter of the corpuscles infiltrates the tissues, and there gradually undergoes a granular precipitation, forming the little particles known as melanin. If in a tissue containing cellular elements the bulk of the hæmatin finds its way into them, it may occur in them only; but if the extravasation takes place in the region of a fibrous tissue, like these indurated areas in the lungs, the colouring matter passes by imbibition among the various elements, and we find it there as a granular precipitate.

In the normal process, as it goes on for example in the *rete mucosum*, the cells obtain colouring matter from the nutritive plasma, without any stagnation or rupture of vessels. One pathological condition, met with in the pigmented Sarcomas, adheres to the physiological method, for the cells of these derive their pigment, in great part, from the plasma irrigating the tissue, but according to some observers, also from small capillary hæmorrhages.

It is interesting in this connection to refer to the corpuscles containing red blood corpuscles which were found

in the lungs of several of the kittens experimented upon. Here we have to do with an intravasation, or rather an ingestion of the coloured corpuscles within others. Many deny this, but as far as my observation goes there can be no doubt of the fact. In these corpuscles as many as six to ten were seen, in others again the outlines of the red corpuscles could not be detected, as if the cells had absorbed only the colouring matter. Nuclei and granular protoplasm were also seen—strange constituents, if, as some suppose, the appearance of a cell is caused by the separation of the fibrin round a group of red corpuscles. I have sketches in my possession of amœboid cells from newt's blood crowded with blood corpuscles of the guinea-pig, which were abundant in the serum with which the newt's blood was mixed for examination; and it is not at all unlikely that other amœboid cells, even in the tissues, should do the same thing. This is not a common way for cells to become pigmented, but there can be no doubt that these would rapidly have become so, and would then have been undistinguishable from many of the larger corpuscles containing Indian ink granules. To sum up—

I. The histological examination of these two specimens of miner's lung favours the view that in the early stage the process is confined to an increase in the fibrous elements about the bronchioles and vessels, and in certain emphysematous areas—a genuine Cirrhosis, or, as some would prefer to call it, an interstitial Pneumonia.

II. A considerable proportion of the carbon is contained in large cellular elements, which are specially abundant in the less pigmented, healthy portions, and in these it probably remains without much injury to the lung parenchyma. Another large part of the pigment lies free among the elements of the tissues, this being specially the case in the indurated spots, in the thickened pleura, and at the junction of the alveolar septa.

III. The extraneous origin of the carbon is proved by the detection in the lung of portions of fossilized vegetable tissue in the form of scalariform and dotted ducts.

Report of a successful case of *Tracheotomy in Membranous Croup*. By HENRY P. WRIGHT, M.D., C.M., Ottawa.

Peter Hogan, æt 7. On the night of August 5th. 1875, I was called to see the above who was supposed by his parents to have been suffering from a severe cold for the week previous, at length however, they thought the symptoms sufficiently alarming to have medical advice.

I found the child to be suffering from all the symptoms of membranous croup. Voice whispering, cough frequent and tiring, breathing stridulous, pulse full and regular, temperature 102°, skin moist. They said he had been suffering much in the same way for the past 48 hours.

I gave him at once, half an ounce of wine of Ipecac, emesis was soon produced, ridding him of a good deal of viscid mucus, but no false membrane. I ordered two grains of Iodide of Potassium every two hours and the compound tincture of iodine to be painted over the larynx every six hours.

Aug. 6th. 10 a.m. Found him a little easier. To continue the same treatment.

Towards evening the symptoms again grew worse and at midnight the father brought me such a report that I deemed delay dangerous and sent him at once for Dr. Church to assist me in performing the operation of Tracheotomy. On our arrival we found the symptoms less alarming than we had been led to suppose, so we determined to give medicine and time a further trial. We administered two drachms of powdered alum, this produced full emesis and gave slight relief. We waited for a couple of hours and finding there was no increased aggravation of the symptoms, left with word to continue the Iodide of Potassium.

Aug. 7th. Symptoms continued much the same through the day only the child was evidently getting much weaker. I gave him at intervals an emetic dose of sulphate of copper. At night the symptoms again became worse and at 2 o'clock the dyspnœa was so great as to threaten suffocation. The

pulse became weak and irregular, inspiration stridulous, lips and tongue blue, skin moist and extremities cold. Auscultation revealed almost inaudible breathing, the chest walls bulging above and strongly retracted below. We now considered tracheotomy necessary and proceeded to operate without chloroform. I performed a slow dissecting operation, in doing so however I was unfortunate enough to wound a large venous trunk which was followed by the most alarming gush of blood and was arrested by inserting the finger into the wound and pressing against the sternum. As soon as I withdrew the finger the bleeding recommenced, it was at last controlled, after several ineffectual attempts to ligate, by stuffing up the place till now occupied by my finger, with a piece of soft muslin at hand and then I proceeded in the usual way and reaching the trachea divided three of its rings when brought nearer the surface by an act of inspiration. The tube was inserted at once as I feared the entrance of too much blood into the trachea. I then removed the stuffing and though the bleeding continued for some time after, yet it was not enough to cause any alarm. I feel satisfied that the vein divided was the transverse communicating branch between the anterior jugulars its course being higher up than usual. The child lost about eight ounces of blood.

Aug. 8th. Six hours after operation, respiration easy and regular, has had a calm refreshing sleep. Has had a feed of bread and milk, a good deal of the milk enters the trachea, and is coughed up through the tube. Skin moist and warm, extremities warm, lips and tongue red, countenance devoid of anxiety. Continued nicely through the day. *Diet*, bread and milk, cornstarch and beef tea. The inner tube to be cleaned out every 3 hours.

Aug 9th. Rested well through the night. Pulse respiration ratio normal, temperature normal, deglutition and inclination for food good.

The edges of the wound are rather prominent and have an ashy grey appearance. Applied nitrate of silver and in-

serted beneath the canula plate a piece of soft cotton saturated in carbolic oil—1—16.

Aug. 10th. Slept well, in good spirits. All the symptoms continue favorable, same diet. Bowels moved by an enema.

Aug. 11th. Steady improvement. Symptoms continued good and on the 14th, finding the pulse respiration ratio normal, temperature the same, and having taught him to whistle for two days before, I withdrew the entire tube and dressed the wound with carbolic oil, 1–8. He had no difficulty in breathing after the withdrawal of the tube though he felt a little nervous from want of confidence in himself. The wound healed rapidly, no untoward circumstance interfered with his complete recovery.

Remarks.—The case though highly satisfactory was uncomplicated, the age was favorable and the disease was limited to the larynx. The only difficulty was the hæmorrhage, and, in connection with that we concluded that on future occasions, when it was necessary to extend the incision it would be wiser to cut up towards the larynx than towards the sternum, and that when bleeding did occur no method of arrest could be more effectual than compression by stuffing up the wound with soft muslin or cotton. The whistling which he was made to practice seemed to thoroughly exercise his respiratory apparatus, an exercise so entertaining to the little patient as to be frequently resorted to and well done, and to it I am inclined to attribute a great portion of the ease he experienced after the removal of the tube.

Post-partum Convulsions treated by the Hypodermic injection of Chloral. Under the care of Dr. Roddick, at the Montreal University Lying-in-Hospital. Reported by Mr. A. F. Ritchie.

F. M., a native of Canada, 26 years of age, short in stature but well proportioned, complexion dark, disposition quiet, personal and family history good, was admitted to

the Lying-in-Hospital pregnant of her second child, the first having been born in natural labour some five years since. On Friday, July 30th, at 3.30 a.m., after ten hour's labour she was delivered of a healthy child, weighiug ten pounds, six ounces. The head presented in the fourth position but was readily changed to the first, and the birth accomplished without difficulty.

Nothing special was observed in the case till about twenty-four hours after delivery, when she complained of violent frontal headache with nausea, followed by repeated vomiting of bilious fluid. This continued till 2.30 p.m. Saturday (thirty-five hours after delivery), when a slight but unmistakable convulsion seized her. In the absence from the city of Dr. D. C. MacCallum the regular attending physician of the institution, Dr. Cline, of the Montreal General Hospital, was called in, who ordered her urine to be examined and found it to contain about ten per cent. of albumem. He accordingly prescribed a brisk purgative and a mixture containing the acetate of ammonia and infusion of digitalis. The first fit was followed at intervals of ten minutes by two others increasing in severity, and the patient rapidly fell into a comatose condition, which became more profound with each attack. The lochial discharge was now entirely suspended. After the first dose of the mixture there was an intermission of about two hours. The convulsions lasted about a minute, the intervals being about ten minutes, although sometimes the fits were almost continuous. When she received the second dose in three hours, an intermission of an hour occurred, after which they returned at short irregular intervals during the night. Brandy and water was ordered, but was swallowed only in small quantity and with great difficulty. The urine seemed to be secreted freely but was voided immediately.

Aug. 1st, 7.30 A.M.—Dr. Roddick has been hurridly called in, as her condition now seems to be most alarming; pulse 140, temperature 100:6. He explained to the students present that it was desirable in such cases to employ

an anæsthetic, but on the present occasion from the urgency of the symptoms he preferred the administration of Chloral by hypodermic injection. A solution in which twenty minims contained seven grains of the salt was at once procured and thrown under the skin of the arm. A convulsive seizure followed immediately upon the withdrawal of the needle, but this proved to be the last, the total number being sixteen. Notwithstanding the cessation of the convulsions the injections were continued at intervals of an hour, the amount being subsequently increased to ten grains. At 2.30 p.m. the coma was less profound; she could feel the needle and tried to remove it, while the eyelids resisted any attempt to separate them. 3.45 p,m—an injection per rectum of turpentine and castor oil brought away a small quantityof fœcal matter; pulse 160, resp. 30. 5.15—very restless, gr. x hypodermically. 7.35 p.m.—pulse 140, resp. 24, bowel well relieved by injection.

Aug. 2nd, 7 A.M.—Has been regaining consciousness rapidly during the night and now swallows beef tea and brandy readily. 3.30 p.m.—Very dull and stupid, but will open her eyes when called in a loud voice and protrude her tongue. No albumen in urine. 11 p.m.—Being very restless and slightly delirious, a draught of gr. xx of chloral was given.

Aug. 3rd—The patient to-day is quite rational though very feeble and easily excited by noise. The cries of another patient in labour in the neighbouring room disturbed her very much. A draught of chloral was again ordered to be given at bedtime.

Aug. 4th.—There is a marked change for the better to-day, being perfeetly quiet and rational; takes abundance of nourishment. There is a hard lump in the cellular tissue of the size of a pigeon's egg where each injection was given, and below the clavicle in the situation of one is a small superficial slough of the size of a ten cent piece. None of them cause her any pain or uneasiness.

Aug. 14th.—She is to leave the hospital to day, and with the exception of two or three brawny swellings and the remains of the small slough referred to, there is nothing to mark the positions of the injections. She is in perfect health.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Morbus Coxae. Death from Pyæmia. Unusual Situation of Head of Femur. Under Dr. Ross. Reported by Mr. R. L. MACDONNELL.

Daniel Fitzpatrick aged 8, was admitted into the Montreal General Hospital in the latter end of the month of June, 1875 and was placed in Dr. Reddy's wards.

He is a weak, unhealthy, cahectic boy, thin and emaciated. His limbs are wasted, the abdomen puffy and large, and the head of abnormal dimensions. Previous to his admission he was an inmate of the St. Bridget's Asylum. The little that could be gathered from his family history revealed the following facts, that his father and two brothers were alive and healthy, that his mother had died of phthisis, that none of the family had exhibited a scrofulous diathesis. Nothing reliable could be obtained as to his own history. He was admitted suffering from pain in the right knee and left shoulder joint. Little could be done in the way of examining these articulations, inasmuch as, even the approach of any one to his bedside caused him most excruciating pain. He was by Dr. Reddy, placed on alkaline treatment, which gave him no relief. An abscess was soon detected in the left shoulder, pointing on the anterior aspect of the joint. This was opened, and a quantity of pus evacuated. He then, on the 1st July came under the care of Dr. Ross, who discovered a large bag of matter on the upper and inner part of the left thigh. The abdomen was also swollen in the left iliac region, and in both situations fluctuation could easily be made out. The patient was anaesthetized, and the needle of an aspirator inserted into the femoral abscess, ten ounces of dirty, unhealthy and very fœtid pus were

drawn off, the abdominal enlargement disappearing as the fluid came away. While under the influence of the chloroform a thorough examination of the joints was instituted. The legs were equal in length. Rotation of the left thigh showed great roughening of the cartilages, and grating could be felt and heard. In a few days, as no discharge came from the puncture made by the aspirator needle, and as the sac of the abscess again became filled with matter, an incision was made into it with a Symes' knife, and a quantity of matter allowed to escape. A few days after this a second incision was made lower down the thigh and a drainage tube was inserted.

July 15th. The patient complained of pain in the wrist joint, and on examination that structure was found swollen and excessively painful. Motion was absent, the tissues around the carpus were thickened. He carried the joint in a curious manner, the carpus was extended on the radius, while the hand from the carpo-metalcarpal articulation drooped. Dr. Ross ordered a small anterior splint, as well as blisters above the seat of disease.

The constitution is very much involved, the pulse has been frequent, small and weak, the temperature is also elevated. Diarrhœa has been present at several periods in the course of the disease but has been checked by M. Cretae Co. combined with Extract Rub. Villos. He is taking tonics with wine.

July 17th. His left thigh is abducted, the leg and foot everted, the thigh is flexed forcibly on the abdomen and the leg on the thigh. The abscess is discharging freely and is daily injected with a weak solution of carbolic acid. —Carbolized tow is applied to the wound, and exercises a great influence in suppressing the fœtor.

July 20th. Complains of pain in abdomen, which is tender to the touch and tympanitic. M. Cretae Co. however gave him relief.

July 24th. A large abscess was noticed for the first time, to-day. The situation is over the right hip, and its sac ex-

tends upwards and inwards over the right buttock almost to the sacrum, downwards as far as the insertion of the tensor vaginae femoris. Chloroform was administered, the matter removed, and a drainage tube applied. The matter evacuated resembled that from the other side but if possible was more fœtid. A similar dressing was ordered viz., carbolized tow and carbolic acid injections.

July 25th. Both abscesses are running freely and the dressings require constant change. Every now and then there is fullness in the left iliac fossa which disappears on the application of a poultice to the openings in the left thigh.

July 27th. Pain is complained of in the right knee. The limb is flexed, and any attempt at extension causes intense pain. The joint is hot and tender. A pillow was placed under it and warm fomentations applied. This gave great relief.

July 29th Affairs in much the same state. The constitutional disturbance seems greater, the patient being very much debilitated by the constant drain of pus. Diarrhœa, with foul evacuations is present.

Aug. 23rd. The condition is a little improved. The right knee was extended, and after no little resistance the patient was induced to retain it in that position. There is now great atrophy of the forearm. A splint is still applied to the wrist joint.

Aug. 4th. Pulse and temperature high. The former is very weak and compressible. The patient was delirious during the night and there is a great deal of perspiration. Cutaneous hyperæsthesia is present, and even the insertion of a thermometer into the axilla seems to cause pain.

Aug. 5th. Delirium persistent. At 4 30 p.m. had an attack of convulsions and died at 6 p.m.

Post Mortem Examination.—Eighteen hours after death. On manipulating the left thigh, there was great roughening found and the head of the bone felt quite loose in the acetabular fossa, there seeming to be nothing whatever to retain it in its place. The head of the right femur moved quite

freely about and by no means could roughening of the joint be detected. The left leg was shorter than the right by about an inch.

The Brain, was very large and well developed for a boy of his age, it weighed 48 oz. The arachnoid was thickened and opaque though no distinct deposit of lymph could be seen. The opacity was greatest on the upper surface of the organ, but under the fissure of Sylvius, in the vicinity of the island of Reil there was a small area of yellowish discolouration. Under the arachnoid there was extensive effusion ($3\frac{1}{2}$ oz) of a sero-purulent fluid. The convolutions of the hemispheres were distinctly marked and widely separated. The vessels on the surface of the brain were slightly congested. On section, the centrum ovale majus was preternaturally white. No central softening could be discovered, the formix however, seemed a little too friable. The ventricles contained a small quantity of fluid.

Thorax.—Heart healthy with a firmly contracted left ventricle. No effusion in the pericardial sac.

The lungs were adherent to the chest walls in several places. The base of that of the left side was hardened and collapsed, and fragments of it would not float in water. The right lung and the upper lobe of the left were healthy, though a little deficient in pigmentary material. Liver slightly enlarged.

The capsular ligament of the left hip joint was entirely obliterated. The cavity of the joint, as well as adjacent structures were bathed in pus. The upper end of the femur, exceedingly necrosed, rested in the acetabulum. This cavity was enlarged, oval in shape, and extensively diseased but was not perforated. On extending the incision backwards the epiphysal extremity of the head of the femur was found lodged in a fossa behind the brim of the acetabulum, resting on the great sacro-ischiatic ligament, which was partially disorganized. The bony part of the epiphysis was intact but it was stripped of its investing cartilage. I attribute this extraordinary state of affairs to the position in

which the patient used to hold the limb, and advance the idea, that in the extreme state of flexion in which the femur was retained, there being no capsular ligament, the head of the bone passed partially over the brim of the acetabulum, and that, while in that position, the pressure of the brim on the disk of cartilage joining the epiphysis with the neck of the femur, caused its disorganization. The epiphysis then, separated from the neck in this way, dropped over the brim and became lodged in the great sacro-ischiatic notch and found a resting place in the pulpy and disorganized tissues.

The remaining ligaments of the joint could not be found, and the bone was held in its place merely by the action of the muscles adjacent to the articulation. On the inside of the pelvis on the left side there was a large bag of pus, lying between the iliacus muscle and the iliac fascia, and communicating with the abscess on the inner and upper part of the thigh through the great sacro-ischiatic notch.

The capsule of the right hip joint was entire but full and tense. On making incision into it, a large quantity of pus escaped The ligaments on that side were not diseased, with the exception of the ligamentum teres which was entirely destroyed. The cartilaginous covering of the head of the bone was slightly eroded and caries had just commenced in the fundus acetabuli, in the situation of the Y shaped piece.

The wrist joint contained a small quantity of pus, mingled with its synovia. There was great lack of motion in the joint.

Periscopic Department.

SURGERY.

On Tracheotomy in Croup and Diphtheria. By GEORGE BUCHANAN, M.A., M.D., Professor of Clinical Surgery in the University of Glasgow.

The prevalence and fatality of diphtheria of late years, as may be seen by a perusal of the Registrar-General's returns, has drawn the attention of the profession to the etiology of that disease, and has recently given rise to a controversy

as to the identity or non-identity of croup and diphtheria. Many able papers have appeared in the pages of the British Medical and other journals on this subject, and to them I refer those interested in the question; but there is one point of resemblance which is of the utmost importance in a practical point of view. Although the two diseases may be as distinct as to cause, course and sequelæ, as scarlet fever is from simple tonsillitis, yet both are characterised by the effusion,on the mucous membrane of the air-passages, of a tough false membrane. This membrane may differ in its nature and in situation, at least at the commencement, but the tendency in both cases is to obstruct the breathing and cause suffocation.

This seems so self-evident that I must almost apologise for mentioning it; but I have been so often met with the objection that, because the primary disease causing the effusion is diphtheria and not croup, therefore it is hopeless to interfere, as the operation will not cure the specific disease, that I have considered it not out of place to introduce it. We might as well refuse to open an abscess of the tonsil which was about to choke a patient suffering from scarlatina, because the operation will not cure the fever, as refuse to relieve a patient from instant death from suffocation because the operation is not a cure for diphtheria.

Now, the point I wish to bring out is, that there is a stage both in croup and in diphtheria at which it becomes evident that recovery is hopeless and death from suffocation certain. It is quite true that it is exceedingly difficult to say when that stage has arrived, and mistakes may sometimes occur; but I believe practically it is better to err on the safe side, and acknowledge the inefficacy of treatment, rather than delay till it is too late to resort to the last resource. Tracheotomy *per se*, though a difficult, is not a dangerous operation; and I, for one, would be inclined to urge its performance before the strength of the little sufferer has been brought to the lowest ebb by the struggles which result from the approaching suffocation.

I wish, however, clearly to guard myself from being supposed to advocate tracheotomy in all circumstances of approaching death from croup or diphtheria. I have elsewhere explained my views on this subject, but I cannot avoid referring to them again.

The diseases in question, but especially diphtheria, when they prove fatal, cause death in one of two ways ; either by exhaustion or by suffocation. Hence, we may say there are two varieties, viz., the asthenic and the sthenic. In the great majority of instances, croup is a sthenic inflammation attended with effusion of lymph in the trachea, and proves fatal by suffocation. In some cases, however. the attack is attended with such a depression of the vital powers that the patient sinks apparently from the virulence of the disease. This, however, is a rare case. But in diphtheria there are two well marked types: the sthenic, which closely resembles an attack of sthenic croup, except that the effusion of lymph begins on the fauces and extends through the glottis into the trachea ; and the asthenic, which more closely resembles scarlet fever, and in which the effusion covers the whole of the mucous membrane of the fauces, tonsils, and even the pharynx, and in which the false membrane soon becomes foul, putrid, ichorous, and contagious.

In the former of these types, the danger is suffocation; in the latter, it is vital depression, death from asthenia.

Now, with regard to the treatment of these affections at the early stage, I wish here to make no reference ; the scope of my remarks is the duty of the medical attendant, when medical treatment has failed, or is clearly failing to arrest the disease. And I think that it is very important that medical practitioners, especially those commencing practice, should be supported by the opinion of those qualified to advise them in such a delicate matter as this, seeing it is a most painful and disagreeable task to advise parents to submit their children to such a repulsive proceeding.

I believe, then, that I am justified in calling on all those who have seen much of these diseases to unite with

me in asserting that, when medical treatment has been fairly tried and when it is proving unavailing, and when death seems imminent from suffocation, not from vital depression or exhaustion, it is the duty of the medical attendant to perform, or advise the performance of, tracheotomy.

I know that here I shall be met with the objection that some cases which seemed hopeless have ultimately recovered; but these isolated examples are very few in number, and are counterbalanced out of all proportion by others in which delay, owing to repugnance to the operation and a hope that symptoms will improve, has deprived the patient of that chance of life which the surgeon can offer.

In pressing this view on my medical brethren, I am aware that I am adding nothing new to what has been frequently advanced by those who have had occasion to operate much in croup and diphtheria, but every year convinces me that it is the duty of those whose experience qualifies them to speak with authority on the matter, to reiterate their convictions, even if it be in nearly identical terms.

Last December, I was called to a case of croup, and when I arrived I found the child, a girl seven years of age, in the last stage of suffocation. The two medical gentlemen in attendance declared that the patient was beyond the reach of surgery. One of them, who had never seen the operation, strongly dissuaded me from making the attempt; the other, who had at one time been one of my clinical students, on hearing my wish to give the child a chance, persuaded the parents to consent. The little patient was livid, and though I did not use chloroform, as I usually do, it did not wince when I made the incision through the skin. The result was that the child is now alive, and in the enjoyment of excellent health.

To one who sees the operation for the first time, the hopelessness as to the attempt is only equalled by the surprise and gratification at the result.

But, while I am so strongly advocating the operation in the circumstances referred to, there is one condition in

the suffocative form of those diseases which contra-indicates tracheotomy, and which, if discovered, should prevent any one from performing it. When the suffocation depends not only on obstruction of the trachea, but also on effusion of false membrane or the glutinous fluid which precedes it, into the smaller bronchial tubes, then the case is not one for operation. The difficulty, then, is to discover when the false membrane which causes the obstruction to breathing is limited to the trachea and larynx and when it has invaded the bronchia. Percussion and auscultation ought to assist in the diagnosis, but the restless tossing of the child and the noise of the breathing always make this a difficult proceeding.

There are two signs which appear to me to be valuable guides ; one is the amount and loudness of the stridor, which is always great in proportion to the patency of the small tubes and obstruction in the trachea.

But the most valuable test is a view of the naked chest. When the obstruction is in the trachea, while the bronchial tubes are free, the respiratory movements are continued with exaggerated energy, but the chest will not respond to the muscular efforts. The result is that at each inspiration the flexible parts of the thoracic walls are drawn in with great force, the intercostal spaces are hollowed, and the ensiform cartilage sucked back. But when the small bronchial tubes, and, perhaps, the air-cells, are stopped with the viscid or membranous effusion, the muscular efforts are more feeble and the chest remains puffed out, and the whole aspect is that of a child thirsting for breath, but with the lungs already full and themselves unfit for respiration. In this latter case, I never operate ; in the former, with every hope of success.

This is not the place to enter into details with regard to the operation, which vary in many respects in different cases ; but one thing may be impressed on the young operator by one who has had considerable experience ; and that is, that tracheotomy is not the simple plunge of a knife into

the trachea that many suppose, and that can be easily effected in the bloodless neck of a subject on a dissecting-room table. It requires coolness and patience on the part of the operator. Sometimes the trachea can be exposed by very little dissection; at others, numerous obstacles come in the way, especially in young children. Amongst these may be mentioned overabundant cellular tissue and fat, turgid veins, isthmus of the thyroid gland, which is very large in infancy, and protrusion into the wound from below of the thymus gland, a frequent cause of surprise and annoyance to those who are not forewarned. In consequence of these possible complications, the operation must be done slowly and systematically, obstacles turned and held aside, bleeding vessels secured; and the golden rule is that the trachea is never to be opened till its white rings are seen clearly at the bottom of the wound.

The following table contains an account of my operations of tracheotomy in croup and diphtheria, and the respective results.

Case	1.	Croup;	aged 6.	Cured.
"	2.	"	" 3½.	Death in three hours.
"	3.	"	" 3.	Death immediately.
"	4.	"	" 1¼.	Death in sixteen hours.
"	5.	Diphtheria;	" 2.	Death immediately.
"	6.	"	" 2½.	Death in six hours.
"	7.	Croup;	" 1⅝.	Death in eight hours.
"	8.	"	" 3.	Death in twenty-four hours.
"	9.	Diphtheria;	" 4.	Cured.
"	10.	"	" 2½.	Cured.
"	11.	"	" 1¾.	Death in twenty-four hours.
"	12.	Croup;	" 5.	Cured.
"	13.	Diphtheria;	" 2½.	Death in forty hours.
"	14.	Croup;	" 5.	Cured.
"	15.	Diphtheria;	" 5.	Death in twenty-eight hours.
"	16.	"	" 5½.	Death in five days.
"	17.	"	" 6.	Cured.
"	18.	"	" 3.	Death in four days.
"	19.	"	" 3½.	Death in seven days.
"	20.	"	" 2.	Death in five days.
"	21.	"	" 2½.	Cured.
"	22.	"	" 6.	Death in two days.
"	23.	"	" 5.	Cured.
"	24.	"	" 8.	Death in thirteen days.
"	25.	Croup;	" 1½.	Death in six hours.
"	26.	"	" 5.	Cured.

Case 27.	Diphtheria ;	aged	5 .	Death in five days.
" 28.	"	"	7 .	Cured.
" 29.	Croup ;	"	5 .	Death in three days.
" 30.	Diphtheria ;	"	5 .	Cured.
" 31.	"	"	2 .	Death in two days.
" 32.	Croup ;	"	2½.	Death in two days.
" 33.	Diphtheria ;	"	5 .	Death in six days.
" 34.	Croup ;	"	9 .	Cured.
" 35.	"	"	4 .	Death in three days.
" 36.	Diphtheria ;	"	8 .	Death in eight days.
" 37.	"	"	7 .	Cured.
" 38.	"	"	7 .	Death in three days.
" 39.	"	"	5 .	Cured.
" 40.	"	"	5 .	Death in two days.
" 41.	"	"	4 .	Death in three days.
" 42.	"	"	6 .	Cured.
" 43.	"	"	4 .	Death in two days.
" 44.	Croup ;	"	7 .	Cured.
" 45.	"	"	9 .	Death in four days.
" 46.	Diphtheria ;	"	6 .	Cured.

Total cases of Tracheotomy,..... 46. Cured 17: Died 29.
Tracheotomy in Croup,..... 16. Cured 6; Died 10.
" Diphtheria, ... 30. Cured 11; Died 19.

The average result is precisely the same, viz., one child is saved out of every two and two-thirds operated on ; and, as the operation was always done when there seemed no hope of recovery otherwise, it may safely be stated that the lives of these seventeen children were saved by tracheotomy —*British Medical Journal.*

A new Hospital in Paris.

A new hospital, to be named the Ménilmontant Hospital, is to be opened towards the end of the year in the part of Paris from which it derives its name—one of the poorest quarters. It is situated between the Lariboisière and Saint-Antoine Hospitals, and will contain 150 beds. It consists of isolated pavilions. The wards are large, and none will contain more than twenty-two beds ; there are numerous rooms with one, two, three, or four beds. Each ward has its own staircase : and in the centre of each pavilion is a separate staircase for conveying provisions. The pavilions are surrounded with open galleries, for the use of convalescents in fine weather. Independent of the hospital, there is a lying-in institution consisting of isolated wards.—*British Medical Journal.*

CANADA

Medical and Surgical Journal.

MONTREAL, OCTOBER, 1875.

PREVENTIVE MEDICINE.

The object of the science of preventive medicine is not the treatment of disease when it occurs, but the prevention of the occurrence of disease when threatened. In this country, Canada, much has to be done to give us the means of ascertaining facts with regard to the prevalence of diseases. Before these facts are attainable we must introduce or inaugurate a system of observation. This system of observation is comprised in a definite system of registration. The Government calls upon the people of this country to contribute large sums to keep up its various establishments. This money is cheerfully accorded, because the machinery of the Governmental system is felt to be a necessity.

In the various cities throughout this country sanitation is attracting attention, the people themselves feel that something ought to be done to insure at least public confidence, but what that something should be is indefinitely understood. Improved Governmental organization, or the inauguration of a definite system of observation would render valuable the efforts of the authorities of cities and towns so that they might be of advantage to local improvements in various necessary directions. It is not by a few spasmodic efforts on the part of certain communities that general benefit is to be expected.

If we take as a warning the experience of Great Britain we will find that sanitary legislation became cumbrous and entangled. Sanitary legislation appears to have taken its

rise in Great Britain some thirty years ago when the Imperial Parliament passed an Act, which was generally comprehensive, to promote the health of towns. Since the passing of that Act, numerous other Acts, some twenty-nine in number, have supplemented it, so that experts in hygiene and law became bewildered, as the accumulation of sanitary legislation was such that they were comparatively inoperative. Some year or two since, this being an acknowledged evil, a Royal Commission was issued under the presidency of Sir Charles Adderley, a codification or consolidation of all the Acts resulted, and during the past session the present Government of Great Britain repealed the Acts of previous years, and introduced a consolidated statute, containing all the points of value in the repealed Acts, which became the law of the land.

In Canada we are without any sanitary legislation. The Government of this country has recently introduced and passed a law in reference to the adulteration of food, liquors and drugs, and we believe that public analysts have been or are about to be appointed. This is all very well and very necessary but is a mere item in the many legislative enactments which are required for this country. In looking into this subject we must be fully prepared for its vastness and if wisdom guides our counsels we will try and take advantage of the teaching which legislation in other parts of the world affords. Laying aside all theory, we know as a fact, disease of whatever kind, will become more prevalent, more virulent, more fatal, and more permanent, in localities, where sanitary laws are ignored It appears to be the scourge for the neglect of those ordinary rules of cleanliness which contribute to our comfort, if they do not improve our health. Wherever sanitation is laid aside, epidemic disease will arise, and with the sword of the destroying angel do its deadly work of destruction, until appeased, by arousing to a proper sense of the evil of neglect, a better condition of things amongst the sufferers.

Certain epidemics have seemingly disappeared by the improvements of modern modes of living. The plague which spread over Europe some two hundred years ago decimating whole communities has apparently been shut out by sanitary barriers of modern times although it is a disease still known to the inhabitants of the East, and is still as fatal and as contagious as of old. In the matter of small-pox, it has been remarked that this disease occurs in the epidemic form very frequently, every four or five years. From 1837 to 1842 small-pox was prevalent in a very virulent form throughout Europe and indeed extended to our own side of the Atlantic. The mortality from small-pox during this epidemic was considerably higher in the United Kingdom than in continental countries. Vaccination had been voluntarily submitted to, and very generally practiced up to this period in Britain, but in consequence of the virulence and general prevalence of this epidemic, a reaction occurred and persons were numerous who absolutely refused to submit their children to the protective influence of vaccine. This led to legislative interference and by a succession of Acts, compulsory vaccination was at length introduced into the United Kingdom.

Previous to the introduction of these laws three fourths of the cases of death from small-pox occurred amongst children under five years of age. In the epidemic of 1870, less than one third of the deaths from small pox in England and considerably under one fourth of the deaths from this cause in Scotland and Ireland were observed in children under that age. Let it be stated furthermore that when the epidemic of 1870 occurred a large proportion of the children under five years of age were unprotected by vaccination. Another significant fact has been established in respect to the recent epidemic of small-pox. During previous epidemics continental Europe suffered less in proportion than Great Britain; in the epidemic of 1870 the proportion of deaths from small-pox in some of the large towns on the continent was in many instances six to one

of towns of the same size in Great Britain. To sum up we may give the figures of the late Sir James Y. Simpson in an article which appeared shortly before his lamented death, as proving the beneficial influence of Dr. Jenner's great discovery, in saving from death from small-pox, some 80,000 persons annually, provided the same rate of mortality from that disease existed as did exist at the close of the last century ; whereas, the present annual average mortality in Great Britain is about 5000 souls—all too many when it is conceded on all hands that small-pox is a preventible disease. We have illustrated small-pox in this connection because it is prevalent throughout this country at present, but the same may be said of other contagious diseases.

On a recent occasion the Right Honorable Dr. Lyon, Playfair, M. P., in speaking about the House of Commons and sanitary matters, stated that, "the distinguished man who is now at the head of the Government" had said to that house "that the keynote of the parliament was to be 'Sanitas Sanitatum omnia sanitas' * * relating to all subjects connected with the social welfare of the people, he (the speaker) had always admired this, that the House of Commons, of which he had the most experience, forgot altogether that it was divided into two great political parties, and acted as one body in trying to frame measures most productive of good for the public interest." We can only utter a fervent hope that the Government of this Dominion will take a leaf from the British House of Commons and in legislating for the people cast aside all the littleness of party politics and engage in the earnest and much needed reform of sanitary legislation.

We have great pleasure in announcing that our friend and colleague Gilbert Prout Girdwood, M.D., M.R.C.S. England, Professor of Practical Chemistry McGill University, was on the 26th August last elected a member of the Society of public Analysts of Great Britain.

We observe with regret that our old and esteemed friend Sir Duncan Gibb of London, England, has resigned the office of physician to the Westminster Hospital in consequence of the state of his health. Sir Duncan has we believe, recently suffered from an attack of pleuro-pneumonia, but we sincerely hope that rest from the arduous public duties of physician to a large hospital will enable him to rally from his attack of illness and that many years of usefulness may be added to his career.

AS OTHERS SEE US.

The British Medical Journal of September 4th in an editorial item under the heading Anti-vaccinators at Montreal says—"Montreal has been recently the scene of some dis-"graceful rioting on the part of anti-vaccinators. It appears "that of late years, small-pox has been very prevalent in "the city, especially amongst the French Canadians; and "in consequence the Provincial Government passed an Act "to empower the municipalities to enforce vaccination. "This, however, has been strenuously resisted by the French "section of the community, under the leadership of a Dr. "Coderre and other *savants* and a mob of 7000 roughs as-"sembled a few Sundays since, who stoned the aldermen "and gutted the house of one of the vaccination supporters, "and in other ways conducted themselves in an irrational "manner. The police were utterly powerless against the "rioters, whilst, as a natural collateral incident, severe "small-pox still prevails." There are several inaccuracies in this brief account, but it is sufficiently correct to show how we deserve this reproach. It is to be regretted that there should be amongst us men willing to excite to opposition a few fanatics,to that degree as to lead to a serious breach of the peace. For the information of our contemporary however, we would state that the "French section" alluded to, are a very small part of that nationality in our city, anti-vaccination views are by no means believed in by the large majority of our fellow citizens of French descent.

The more educated portion of our French Canadian citizens are as firmly impressed with the value of vaccination as a means of lessening, at least, if it does not actually stamp out small-pox, as are their fellow citizens of British extraction. The riot in question did not so much arise, so far as we can learn, from a desire to oppose compulsory vaccination, as it was a forcible condemnation of a by-law which was about to be submitted, but which we believe never would have been accepted by the City Council without such modifications as would have deprived it of many objectionable features. We abstain from saying more on this subject at present. We understand that the matter is before our criminal tribunals and we suppose that the rioters will be equitably dealt with by the law. We may moreover state for the benefit of our contemporary that Dr. Coderre did not, we believe, lead the mob of 7000 roughs at the time they stoned the aldermen, and gutted the house of one of the medical health officers.

PRSCRIBING LARGE DOSES.

At the Pharmaceutical congress held at Bristol on the 25th and 26th August last, the President Mr. Groves in his opening address observed in substance as follows : That it was to be regretted that in prescribing extreme doses the prescriber did not indicate by some sign that such dose was intended. There should certainly be a means of indicating to the dispenser that the prescriber knew he was ordering an unusually large dose, and that he meant it. This would prevent the assumption on the part of the dispenser that there must be some error, and that in the exercise of his own discretion he should dispense a smaller dose. For instance, quite recently we heard of an apothecary who exercised his own discretion in dispensing a dose of quinine, that had been ordered for a patient with typhoid fever, and instead of giving the patient twenty grains which was prescribed by the physician, he gave two, of course the two grains failed to produce the expected lowering of the temperature which would have followed

the exhibition of the larger dose. The physician suspected the cause, procured the quinine and-dispensed it himself with a very different result. This we mention, as we think in justice to both parties, some means should be adopted to give the dispenser notice that the prescriber is in earnest in prescribing a larger dose than usual.

ZIEMSSEN'S CYCLOPEDIA OF THE PRACTICE OF MEDICINE

Many of the subscribers to this great work are aware that the Volumes of the German Edition are not being issued in regular succession—some of those treating upon subjects of greatest interest having the precedence, although numbered to conform to the plan of the entire work. It has been concluded to follow the same course with this translation; and in compliance with the expressed wish of many subscribers, Volume X., SCHROEDER'S "DISEASES OF THE FEMALE SEXUAL ORGANS," is now published. Volumes IV. and V. will follow, the former to be published in December next and vol. V. in March, 1876. Vol. X., is issued from the press amply illustrated, the wood cuts, one hundred and forty-seven in number are of superior finish and add considerably to the value of the work. They are not a repetition of cuts to be found in other books on this subject, but are new in design and give a tolerably correct view of cases which have come under the authors observation. We congratulate Messrs Wood & Co., on the excellent finish of these books so far as received, and we believe that at the completion of the work, those subscribers who have secured a copy of these volumes will possess an invaluable cyclopedia, one which few real students can afford to be without. The publishers have announced their intention to refuse the supply of single volumes. The work will be published alone for, and issued to subscribers. Let all desirous of supporting this vast undertaking send in their names forthwith to Messrs. William Wood & Company, 27 Great Jones street, New York.

We have received from a friend in Chicago the copy of a circular which we understand is being distributed from door to door in that city. We should not take any notice of this thing were it not that there are some inacuracies contained therein which demand contradiction. The circular reads as follows:—

NO CURE. NO PAY.

H. R. BIGELOW, M. D.

Of McGill University, Montreal, and of Laval University, Quebec, late lecturer on Nervous Diseases at the Indiana State Medical College, can now be found at

253 W. Madison St., cor. Sangamon

where he will examine all who may call at above place

FREE OF CHARGE.

Tape Worms removed in three hours.

As one of the staff of the Lying-in Hospital, of Montreal, he has had large experience in the treatment of female complaints, to which he gives especial attention. Ladies suffering from Flexions of the Womb, Leucorrhœa (Whites), Prolapses, etc., can obtain positive relief. Whites cured in three days.

Now, with regard to this circular we may state that no such person as H. R. Bigelow holds the degree of M.D., from McGill University, nor is he a graduate in any of the faculties of that University, nor does there appear the name of H.R.Bigelow on the list of graduates of Laval University, Quebec. In this advertisement the person calling himself H. R. Bigelow, M.D., states that "as one of the staff of the Lying-in Hospital of Montreal, he has &c." Now, we do not know to which lying-in hospital H. R. Bigelow formed one of the staff. It appears to us he is lying in the face of it as no hospital in this city ever had any connection with any such person, as a member of its staff as H. R. Bigelow, M.D. We might request our medical exchanges to pass this round, as H. R. Bigelow, M.D., may be a travelling doctor, and may in all likelihood appear in some other city than Chicago, but perhaps our contemporaries may think with the countryman, "what pleases him, doesn't hurt I," and therefore where the use of circulating this man's unblushing advertisement; we agree with this in principle, but as this choice morceau, contains lies with regard to the connection of H. R. Bigelow with some of our Canadian Institutions we deem it a duty to give them a flat denial.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Introductory Lecture delivered on Friday, 1st October, 1875, at the opening of the forty-third Session of the Medical Faculty of McGill University, by GILBERT PROUT GIRDWOOD, M. D., M. R. C. S. England, Professor of Practical Chemistry.

GENTLEMEN,—In conformity with the requirements of a time-honored custom, and in obedience to the request of my colleagues, I appear before you to deliver the introductory address on this the opening day of the 43rd session of the Medical Faculty.

Gentlemen, in the name of the Professors of this Faculty I extend to you all a hearty welcome, and hope that you who have been rusticating during the vacation have returned with renewed energy to the work before you.

Allow me to call your attention to a few changes which take place this year in the professional staff.

Dr. Campbell retires from the active duties of the chair of Surgery; and here let me offer to him the expression of deep regret at the loss we suffer by the step he has felt himself obliged to take, and in this regret we must not forget the large share we have had of his energies, in the exercise of his duties of teacher in this faculty, and for which this university has bestowed on him the rank of Emeritus Professor. Many of you gentlemen, doubtless, feel this regret more than I can, from the fact that you have been for a longer period the associates of his toils, and been honored with his friendship, and have for a longer period enjoyed

his society and friendly counsels ; among you are perhaps some at whose nativity he was present, and at whose birth your mother received his fostering care and attention, for Dr. Campbell was a teacher in this school at a time when many of you were in your cradles.

But, gentlemen, our regret is tempered with pleasure, and like a medal has its obverse and reverse.

We rejoice in the fact that we are able to keep our good and talented friend with us as Emeritus Professor of Surgery, and that we still are able to have him with us as the Nestor of our councils, giving us the benefit of his vast experience and mature judgment, professionally, as Professor, and as our Dean.

That he may long live to be present with us to assist and direct us is not only the wish and the hope but the earnest prayer of us all.

By Dr. Campbell's retirement the chair of Surgery becomes vacant, and is filled by our tried and trusty friend Dr. Fenwick, who is already so well known not only to us and to you, but the world over, for his success as a surgeon and his labours as a journalist, and I may add as well loved as known by all who have the pleasure of his friendship.

We have also to regret the loss of our colleague Dr. Drake, who has been obliged to give up the labours of teaching on account of ill health.

To him we must express our heartfelt regrets at the cause which has necessitated his retirement, and tender him our hopes that the relaxation he will be enabled to obtain will restore him to health, and long may he live to enjoy the honour, that of Emeritus Professor, conferred upon him by this college for his services as teacher. The remaining changes in the staff result from the retirement of these two gentlemen. Dr. Osler takes the chair vacated by Dr. Drake, the Institutes of Medicine.

Dr. Roddick succeeds to clinical surgery lately occupied by Dr. Fenwick, in conjunction with the chair of Medical Jurisprudence, in which latter course the chair is filled by

Dr. Gardner, who lately held that chair in the Lennoxville School. Dr. Godfrey has been appointed to the chair of Hygiene, and Dr. Shepherd as Demonstrator of Anatomy.

Thus the Governors have endeavoured to fill up the vacancies consequent on the retirement of their friends with the best talent that the country affords, and we, gentlemen, will endeavour to uphold the position of our Alma Mater, as a school of learning, and in this endeavor we hope to have the cheerful and unwearied co-operation of all the undergraduates.

It is difficult after so many able predecessors have gone over the ground before me, to find a subject whereon to address you. The history of our science has been traced from its beginning to its present date by abler hands than mine. I shall therefore content myself with a few remarks for the guidance, especially for those who now, for the first time are present within these portals ; and trust that they may find acceptance with the elder students who have listened to the eloquent addresses that have been given here in former years. Gentlemen, we meet here to day to inaugurate another year of work, it is well for us at this moment to cast a retrospective glance at our past labours and examine our parts, to see if the work already performed meets with our entire satisfaction, or if in any way we can improve on what has been done. Some of you have had experience and are now entering upon your last year of study, and to you but scant time is left to repair any shortcomings in the performance of your duties. I trust few among you will be able to condemn yourselves on that score.

Should there be one, however, I trust he will take warning and lay down a specific rule for action, allotting to every hour its proportion of labour, and so toil on that by the end of the session all gaps may be filled, and on the day of trial he be not found wanting.

On you, gentlemen, who this day for the first time take your seat on those benches as students, I would urge the

necessity of self-examination to determine whether or no you have considered the duties you are undertaking. Whether the selection you have made of medicine as a profession is all that you could wish for in an occupation. Be assured that the art and science of Medicine and Surgery is no mean mistress to be toyed with for an hour and cast off at your pleasure, she is exacting, and demands of you the most ardent and intense devotion of your first love, and if you freely give that devotion she will not be backward in repaying you for you toil.

Should your self-communion lead you to doubt if you are quite sure of yourselves, then reconsider your decision and if you arrive at any adverse opinion, retire from the profession, and seek some occupation more in consonance with your ideas of life.

Let us see what is required of the student in medicine:

You come here under the supposition that you have received a liberal education, and the more liberal and extended that education has been the more easy you will find the after steps, which lead you to the study of the hidden mysteries of nature and science. These studies being arrranged for a period of four years, you will, if wanting in preliminary knowledge, have hard work to make up for those deficiencies.

You now have your professional studies to go through and they require of you a total abnegation of self, you must be ever ready to attend to any duty you may be called upon to perform, for accidents happen at all sorts of inconvenient hours, and at last having passed your examinations with flying colors, and been rewarded for your proficiency by your license to practice you commence the hard experiences of life.

It is needless to remind you of the oft-told tale of ill-requited toil, that has often before been mentioned to you, but gentlemen, you have selected a profession which has for its object the alleviation of human suffering. What more ennobling object can a man have in view.

In such high estimation was it held by the ancients that they deified the most celebrated physician Œsculapius.

The history of our profession dates to the earliest ages of man, for with his appearance on this globe his ills commenced and with them attempts to relieve them.

As our knowledge increased experience began, and records commenced on all subjects.

All sciences, as we now know them, are but the vast chaos of human record from the remotest ages, organized and reduced to system and order by the master minds whose names we look back to with admiration and reverence, that they had been able to accomplish so much with such poor appliances as they had to work with ; and whose names stand out as goals to be won and as examples to be imitated.

In our days when the field of labour is so extended, it has became the custom to divide the whole field among a number of hands, and for each to select his own special department for the most perfect cultivation.

In medicine this system of division of labour has been elaborated and we have our specialists. It is, however necessary for a member of our profession, before becoming a specialist to make himself proficient in the general knowledge thereof, and more especially is this the case in this country where the field of your labours will be largely extended through a sparsely populated district.

In large cities you may give up the general practice to become a specialist, but in the country you must be able to act at once in every case you may be called upon to attend.

Therefore cultivate all the brances of your curriculum and your profession

Your student life has for its object not merely the cramming you to pass an examination, although that is by law rendered a necessity, and rightly so ; it has for its object the rendering you qualified to treat a case of disease whenever and wherever you may be called upon, and you must be ready to act on the moment ; there is no waiting to consult authorities, you must have your knowledge at your

finger ends ; you must not only know but you must be able to at once apply that knowledge.

A human life is hanging on your ability to do the right thing at the right moment.

How is this to be obtained ?

Only by indefatigable industry and punctual attendance to your duties as students.

In the curriculum laid down for you, you have the advantage of the guidance of those whose judgment of what is necessary has been matured in the field of practice, and you are the fortunate husbandmen who are the reapers of the rich harvest the result of the toils and labors of your predecessors.

And having reaped that harvest it will become your duty to till the soil by diligent work, that when you are called away from the abode of men you will feel that the talent that was committed to your charge you have utilized to its fullest capacity, and you have left your successors a good account with interest added.

In the course of the lectures you are called upon to attend you will be led by degrees from the groundwork of medicine, through various stages to the most profound theories of human disease. From the bony skeleton, the framework and support which carries the soft parts to the most complicated structures to the generation of thought, a perfect whole.

Be careful to lose no opportunity of becoming acquainted with human anatomy, and rest not satisfied with human anatomy alone, study along with it, the anatomy of the lower animals, for upon them you will have to make experiments to carry out original research, and by analogy you will be able to interpret the signs and symptoms of disease.

In Botany you will be taught the structure of parts of plants, and their functions, their modes of propagation, and of repair to injury, and will find a marvellous similitude between the functions in the animal and vegetable kingdoms.

By the study of these two subjects you will have your minds led to a comprehension of the grand scheme of creation.

You will have forced upon you the glorious conception of a superior ruling power ; you will behold with awe the mighty works of creation, and be led to a sense of gratitude that these beauties should be unfolded to your view. In the study of chemistry you will be able see the wondrous variations and complex changes that take place in the unorganized elements themselves, and be able to trace from the simplest element the changes to the most complex form of matter.

You will become familiar with the various imponderable agents which work such vast changes in the world, light, heat and electricity, themselves unseen and only making themselves known by their effects. The mystery of the thunderstorm, with its superstitious surroundings, and the arch of resplendent colour, promise of future pleasure, will be explained to you ; and yet more, you will be able to trace the lifegiving principle of heat.

You will find all these studies systematized and ready to your hand to grasp, and by their systematic study you will be led gradually to put your own ideas into system and order, and be prepared for the engrafting upon that knowledge the greater and still more wonderful scion of knowledge the practical application thereof to the benefit of your fellow creatures, and the alleviation of their distress ; and when after the laborious hours you shall have passed in your studentship and have arrived at what now appears to you the climax of your ambition, and gained the reward so far as your teachers are concerned, the degree to which you will be entitled and have commenced the practice of your noble calling, you will receive a share of your reward in the thanks bestowed on you by those who fall into your hands in the hour of their affliction.

Be punctual at your lectures, be earnest in your attention, labour to understand, inquire of your teachers on any

point which is difficult to you, and rest not satisfied till you have probed the difficulty to the bottom.

Take notes of all you hear; examine for yourselves, and take nothing for granted, but whenever possible verify for yourselves.

Think nothing too small or trivial for observation, it is by straws you can tell the currents of wind or of stream.

Make collections of facts, and therein be careful you are not deceived, for the facts you may record will some day be taken as such, and be systematized by others on your responsibility, and if you allow an error to creep in in your observations you will be so far responsible for errors occurring afterwards.

The whole domain of theory is dependent upon the truth of the facts from which the theory is deduced. In all matters scientific or otherwise we observe facts and record them; and by-and-bye when a sufficient number of experiences have been established, some master lays hold of all these facts, and thereupon deduces theories andl aws, and hence the student of science is led to become a student of truth, and thence to try by every means to throw out error and superstition, which have so often and are still so often employed by the knave to prey upon the credulity of his fellow man.

Be careful in the study of practical anatomy and chemistry; by the one your hand will be educated to the necessary dexterity to perform an operation with comfort and success to yourselves, and the least discomfort to the sufferer; by the other your mind will be moulded to a systematic mode of analysis, by which you will be the better enabled to examine and decide upon a difficult case.

Your materia medica will teach you the derivation of the materials scattered with such profusion by a beneficent Providence; their uses, and mode of application, and will lead you through the sciences of Botany, Geology, and Chemistry. The application of these various branches will be thoroughly explained to you in your lectures, on the

theory and practice of medicine, surgery and midwifery, the institutes of medicine, and medical jurisprudence.

But gentlemen attendance at these lectures will not alone qualify you, you must apply these theories to the cases you find in the wards of the hospital; there it is by the bedside you must for yourselves apply the knowledge gained at your lectures or in your reading; there you must study those physical signs which enable you to distinguish health from disease, and one disease from another.

Note in the hospital wards the practice of your teachers, and verify your own observations and prognosis whenever opportunity occur by your attendance in the dead house, and compare the results there found with the facts observed during lifetime.

You will in the course of your studies have observed that some diseases are communicable, and that there are certain conditions which are best adapted to keep the body and mind in a healthy condition, and others which tend to depress the energies of the body and predispose it to disease.

These observations constitute the science of Hygiene. This science, the outgrowth of the labors of former observers has been elaborated and systematized till it forms a separate course of study, to which your special attention will be given with great advantage.

By attention to this science and the laws which regulate it, the death rate has been decreased from 40 to 17 per 1000 annually in well regulated cities.

The application of your knowledge in Medical Jurisprudence is the most exacting. It requires in you a more intimate acquaintance with all branches of your studies, often having to determine between poison and disease, between injury, accidental or intentional, even to the determining of the nature of the skeleton, and oft times requiring you to enter that most difficult of problems, the human mind, and to determine whether or no it was off the balance.

I would particularly urge on you the study of chemistry at this time, as there is a new law in operation, against the

adulteration of articles of food, and who should be so competent to determine whether an article is injurious to health or not as the physician ; furthermore there will be appointments to be obtained under the Government, and these will require men competent to undertake the work. Having toiled up the various rounds of the ladder till you reach the trial balance, and been weighed, and found good and true coin, you become graduates of this university or any other to whose honours you aspire.

You will have fulfilled the requirements of the law of your country, but let me trust that the insight you will have gained into the knowledge of your profession, will have ripened the early fancy of your first love into the mature, enduring, and earnest devotion of the wedded man.

You may now select your special object of study and pursue it to perfection, and by your assiduous performance of duties render yourselves qualified for selection as teachers, or add your names to the golden list of original discoverers for the admiration and emulation of succeeding generations of students.

Let your motto be

"Me doctarum hœdarœ premia frontium,
Dis miscent superis."

Introductory Remarks to, and Synopsis of, Practical Course on Institutes of Medicine. By Wm. Osler, M.D., Prof. Institutes of Medicine, McGill University.

If one characteristic more than another marks the medical education of the present day it is the desire to have, as far as possible, all the branches taught practically. The theoretical age in medicine is passing away, and is being rapidly replaced by a practical one. Already in large centres like London a revolution has been effected, due in great measure to the wisdom and foresight of the men controlling the great examining bodies, who now demand of all

students presenting themselves for degrees or diplomas, satisfactory evidence of a thorough practical acquaintance with every department of medicine and surgery. It is a well-known fact that the enormous percentage of rejections at the Primary examination for the M. R. C. S., (often 50 per cent.) results from failure in the practical part ; and the same holds good at London University, where no degree of excellence in answering written questions will compensate for ignorance of the details of chemical and microscopical manipulation. This is as it should be, and though the reputation which the medical department of McGill University enjoys throughout the country has been obtained by the practical character of the teaching offered, much remains to be done. Progress must be our watchword, and we must endeavour to keep pace with the old country institutions by taking heed that the beneficial reforms effected in them quickly find a place with us. In this spirit the course you are about to begin has been inaugurated. An opportunity will henceforth be afforded to the students attending this School of becoming practically acquainted with the use of the microscope in physiology and pathology ; and I may venture to congratulate McGill College as the first in this country to offer such a course, and in so doing to be the first to conform in all respects to the requirements of the College of Surgeons of England, which demand that such shall be provided.

The first essential in a course like this is a proper supply of good microscopes, every student must be furnished with one to enable him to follow out the demonstrations with any degreee of satisfaction. These have been obtained from Dr. Hartnack of Paris and Potsdam, and are the same as are in use in the chief laboratories of Europe. No microscope maker, British or foreign, has yet, (as far as my experience goes,) made up an instrument at all to be compared with compact, Hartnack's students' microscope. It is small and easily carried about, not burdened with stage movements, &c., and so not liable to get out of order. The

The object glasses are very superior, possessing a clearness of definition, and power of penetration excelled by few, if any, English lenses. Their uniform excellence is remarkable ; of the dozens of lenses by this maker that I have examined, I have never met with an inferior one. An instrument with magnifying powers ranging from 65 to 500 diameters—capable of easily defining ordinary Bacteria—costs out here (including duty and carriage) about $45, a little more than would be paid for a single English object glass ($\frac{1}{8}$ inch) magnifying as much !

That you have a due appreciation of the value of the microscope as an important means of obtaining correct ideas on physiological and pathological subjects, your presence here to-day assures me. As practical Physicians a knowledge of its use will be most advantageous, and limited indeed must that practice be which does not afford some cases upon which the microscope would throw light. In no class of diseases is it of greater service than in the various Renal disorders. Here we may not only date the commencement of the affection, and follow it in its progress, but, also, very often obtain tolerably certain evidence of the nature of the changes going on in the kidneys. In the examination of vomit and alvine discharges the practitioner is able, if familiar with the use of the microscope to decide upon the nature and origin of substances, which, to the unaided vision, may appear very doubtful. I remember a case a few years ago, which occurred in the practice of a friend, of a man who had a fistulous opening in the right iliac region, which discharged a considerable quantity of stinking pus ; occasionally a distinct fæcal odour was perceptible in the discharge, and the question arose as to a communication with the gut. After a careful search I found several portions of striped muscular fibre and vegetable tissue, proving that at some point a communication with the bowel must have existed. Satisfactory evidence can be obtained by it of the occurrence of softening in a lung, by a careful examination of the sputa, even before the physical signs give any such indication.

In Medico-Legal inquiries the general Practitioner derives most important aid from the microscope. Chemical analyses in poison cases are usually—and rightly—carried out by specialists, but every medical man should be able, in given specimens, to distinguish between blood stains and those of reddish fluids, between human hair and that of animals, and be able to pronounce an opinion on a supposed semen stain. In the diagnosis of tumours, another important use is found for this instrument; but here, as we shall learn, caution must be exercised. Except in well marked instances of Scirrhus and Epithelioma, few things are more difficult to decide by the microscope alone, whether a given tumour be a malignant or benign growth. Often it is quite impossible, and in all cases the general character of the tumour must be taken into consideration. The Physician is usually the sanitary authority of his district, and supposed to know diseased from healthy meat, which it is not always possible to do on external examination; and here again the microscope will do good service. These are briefly a few of the instances in which a knowledge of the use of this instrument will assist you in practice. I have purposely mentioned these few pathological instances of the use of the microscope first, for as practical physicians we must consider them of primary importance; but in addition you will find a genuine source of enjoyment and profit in following out almost any branch of Histological inquiry. We shall begin upon and work over the normal textures of the body, which will familiarize you with the details of manipulation, and without which it would be impossible to appreciate the pathological changes in the various organs. As in learning the use of any other instrument, so with the microscope, you must not expect to become proficient all at once. In the present course you will, at any rate, master the chief difficulties, and be able to pursue the study by yourselves, as well as prepare a set of specimens that may be useful for reference hereafter. Though the two hours devoted to the demonstration will

be sufficient to show you how to examine and prepare the tissues, yet I hope to be able to arrange for another hour in the week, when you can have access to the microscopes, and study your specimens. We shall try to carry out on each day the appointed work, but I expect you all to keep a sharp look out in the Hospital, and obtain any interesting specimens that are about. They do not always come to hand when wanted, and must be examined as we get them. Some of you, no doubt, will want microscopes of your own, and I am negotiating to get an agency established here for these instruments, whereby they can be supplied to the students at cost price, and I am in hopes of being able to obtain the sanction of the Government to pass them into the country free of duty for educational purposes. I trust the course to-day inaugurated contains the promise of better things to come; and I look forward to the time—not far distant I believe — when we shall have a well equipped Physiological Laboratory, in which students may not only obtain a practical knowledge of this important subject, but also, under the superintendence of a skilled assistant, be able to carry out and extend their physiological studies.

SYNOPSIS OF THE COURSE.

DEMONSTRATION I.—General description of the Microscope. How to clean it. How to tell its magnifying power. How to draw with it. Examination of dust, cotton fibres and air bubbles.

DEM. II.—Protoplasm. Amœba. Cyclosis in Anacharis. White blood corpuscles.

DEM. III.—Red blood corpuscles of Frog, Fish, Bird and Man. Hæmoglobin crystals from Rats' blood. Hæmin crystals. How to examine blood stains.

DEM IV.—Epithelium: squamous, cylindrical, glandular and ciliated.

DEM. V.—Connective tissues. Corpuscles. White fibrous and elastic tissues. Adipose tissue. Pigment.

DEM, VI.—Tendon, cartilage, bone and tooth.

DEM. VII —Muscle, voluntary and involuntary.

DEM. VIII.—Blood vessels. How to inject.

DEM. IX. Method of hardening tissues. How to cut sections. Liver.

DEM. X.—Lung.

DEM. XI.—Alimentary canal.

DEM. XII.—Kidney.
DEM. XIII.—Lymphatic vessels. Skin,
DEM. XIV.—Nerve, fibres, cells. Central organs.
DEM. XV.—Examination of sputum and vomit. Discharges from uterus and vagina.
DEM. XVI.—Pus. and tubercle
DEM. XVII.—Examination of urine. Casts.
DEM. XVIII.—Examination of urine. Inorganic deposits.
DEM. XIX.—Morbid growths. Cancer cells.
DEM. XX.—Parasites. Animal and vegetable

Case of Fractureof the Epiphysis of the Great Trochanter. Periostitis.—Pyæmia.—Death. By T. G. RODDICK, M.D. Professor of Clinical Surgery, McGill University, Attending Physician to the Montreal General Hospital.

On the 4th of July (Sunday) last, I was called to attend a lad, H. P., aged 16, living with his parents in St. Lawrence street, of this city. I found him lying in bed on the right side, and suffering very considerable pain in the lower part of the left thigh and knee, with an aching sensation over the gluteal region. I questioned both him and his mother as to the origin and history of his ailment, but could elicit nothing very definite beyond the following: It appears he had been limping about for three or four days in the previous week, complaining of soreness in the limb, but which was attributed to an ill-fitting boot he insisted on wearing. However, on Thursdsy, while standing at the desk in the office in which he was engaged, he was suddenly seized with an excruciating pain in the left hip, so great and persistent indeed that he had to be taken home in a cab, and placed in bed. After a few hour's rest he became much relieved, and on the following day he limped about the house with comparative comfort. On the Saturday, however, he could not get about without assistance, and next day (Sunday) I was sent for. He had always been an exceedingly active lad, out-stripping the majority of his comrades in the ordinary athletic exercises of running, jumping, &c., and on or about the day his lameness became noticeable, he

has an indistinct recollection of spraining or twisting the affected limb while hurriedly leaping a fence in pursuit of a ball. He limped through the remainder of the game, but next day thought little of the accident, attributing the stiffness in the limb to the tight-fitting shoe already spoken of.

Although there was little or nothing in the history above related to draw my attention in any particular direction, I examined carefully the affected limb but failed to find anything to account for the symptoms of which the patient complained. There was no special pain complained of on pressure over the region of the hip-joint, nor indeed in any other part of the limb, so I was disposed to look on the case as being neuralgic in character, and accordingly administered a hypodermic injection of morphia, with instructions to foment the thigh with hot water and give a dose of senna. I might mention that the patient's bed was very much exposed to draught from a window, which I thought might have had something to do as a cause, and ordered him to a larger and better arranged room.

July 5th.—I found that he was much relieved by the hypodermic injection, and had passed a comparatively comfortable night. I examined the limb again to-day most completely, but with a negative result as far as any injury to the bone was concerned. There was, however, some pain on pressure, and slight swelling over the outer side and front of thigh, and on moving the limb the pain was decidedly greater in the neighborhood of the hip than before. The presence of swelling with pain on deep pressure led me already to suspect periosteal inflammation. There was also now marked constitutional disturbance as evidenced by the coated tongue, rapid pulse, 110, and slight headache. My attention was directed to-day to a swelling of the parotids, especially of the left side, which had been noticed only since my visit yesterday. There was also slight pain in the the right ankle and great toe, with a small patch of redness over each, but no swelling in either that I could make out. I looked upon these as symptoms of grave import. I order-

ed hot poultices to the entire thigh, and internally powders containing five grains of Dover's powder, and half a grain of Calomel every 4 hours.

July 6.—Pulse 116 ; temperature 101½:—Had a slight rigor during the night, the first since his illness, and to-day looked very haggard, although the sides of the face were even worse swollen from the parotid inflammation than yesterday ; the pain in the ankle and toe were worse and the redness was more extensive. The swelling in the thigh was more marked, and although I could not make up my mind that there was fluctuation, I decided on giving him the benefit of the doubt, and accordingly plunged my exploring trocar into the thigh striking the femur on the outer side, and about the junction of its upper and middle third. A quantity of unhealthy-looking sanious pus flowed through the canula, thus verifying the diagnosis at least in one particular. I now gave the patient chloroform, and followed the exploratory puncture with a long and deep incision, down to and through the periosteum. This was followed by an enormous quantity—probably half a pint—of the variety of pus above described. I plugged the wound to the bottom with oiled lint, and ordered poultices of linseed meal. I prescribed also a grain of quinine, twenty minims of the tincture of iron, and five grains of the chlorate of potash in mixture every four hours, together with beef tea, milk, and wine ad libitum.

July 7.—Was very comfortable after the operation and slept well. Pulse 120 ; temp. 102.—Tongue inclined to be dry in centre ; has had two stools rather relaxed in character. I injected the wound thoroughly with a weak corbolic solution as the dicharge continues to be very profuse and fetid. I examined the bone with my finger passed through the wound and was surprised to find a large surface of bare bone extending upwards towards the neck of the femur. A considerable quantity of the injection would be also retained, showiug that a large cavity existed around the bone. A remarkable feature in the case however is the fact, that

almost coincident with the removal of the pus by the incision the parotid enlargement and pains in the joints of the great toe and ankle began to subside, so that by the time I returned, in twenty-four hours, the face had almost resumed its original appearance, and the patient could move the affected joints.

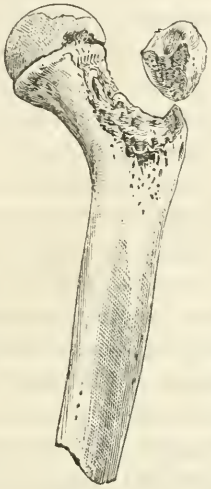
July 8th.—The parotid swelling has entirely disappeared and the ankle and great toe can be moved as well as ever. The pulse to-day is 124, and small in volume ; temperature 100¾ ; had a quarter of a grain of morphia during the night which gave him a refreshing sleep. The discharge from the thigh continues to be large in quantity, and of a most offensive odour. I repeated the carbolic injection and was again surprised at the quantity retained.

July 11.—The condition of the patient during the past two days has been slowly but surely growing more unfavorble. The pulse has ranged from 120 to 130, and the temperature from 101½ to 103 at night. The discharge contiuues to be if anything more profuse and disagreeable, and the patient's strength is rapidly running down.

At my suggeetion, my friend Dr. Fenwick, met me in consultation this afternoon, and after a careful examination of the case agreed with me in the diagnosis and course of treatment adopted, but suggested in addition the introduction of a drainage tube. I proceeded immediately, under chloroform, to make a counter-opening about four inches higher than the original one, and while in the act of passing my finger down to meet the probe bearing the tube I came across a fragment of bone, drawn far away from the shaft of the femur, and which on more careful examination we found to be the *epiphysis of the trochanter major.* As it was held firmly by the muscles inserted into it, and was evidently at that time doing no material harm, we decided on leaving it. The drainage tube was introduced and subsequently did good service in carrying off the rapidly accumulating blood and pus.

July 14.—Has been rapidly growing worse during the

past two days. The pulse is now 140 and thready; temperature 99½. There is a tendency to diarrhœa, although not to any serious extent. To-day he notices that he cannot move his left arm without the assistance of the other, although he has perfect sensation in it, and the pulse of that side is equal in volume with the opposite. When raised it falls heavily and in any position desired, showing an absolute want of power. He is free from pain in any place excepting the injured limb and then only when disturbed. I am still



continuing on with the same treatment, both locally and internally, with the addition of a little brandy and champagne, occasionally.

July 16.—Dr. Fenwick saw him with me again to-day, but could suggest nothing beyond what was being done. He is evidently gradually sinking.

July 17th.—Died this morning; no change in the general symptoms having previously occurred.

Autopsy.—Thirty-two hours after death, assisted by Dr. Cameron, I cut down upon and removed a large portion of the diseased femur, with the unattached epiphysis of the trochanter major. We found the periosteum separated from

the bone down nearly to the junction of the lower with the middle third, consequently for that distance the femur simply lay in the centre of an immense abcess, the lining membrane of which corresponded to the periosteum. The detached epiphysis was by this time almost completely denuded of periosteum, so that it could be removed from its muscular attachments with little difficulty. Owing to the opposition of friends the examination was not further continued.

Remarks.—The above case is almost unique in kind and occurrence, for we are told by Prof. Hamilton, in his admirable work on Fractures and Dislocations, that so far as he knows there is only one "well authenticated example" of fracture of the epiphysis of the great trochanter on record, viz., a case reported by Mr. Key to Sir Astley Cooper. To quote from Prof. Hamilton, "the subject of this case was a girl aged about sixteen years, who fell (March 15, 1822) upon the side-walk, and struck her trochanter violently against the curb-stone. She arose, and without much pain or difficulty walked home. On the 20th she was received into Guy's Hospital, and the limb was examined by Mr. Key. The right leg, which was the one injured, was considerably everted, and appeared to be about half an inch longer than the sound limb. It could be moved in all directions, but abduction gave her considerable pain. She had perfect command over all the muscles, except the rotators inwards. No crepitus could be detected. Four days after admission she died, having succumbed to the irritative fever which followed the injury. The autopsy disclosed a fracture through the base of the trochanter major, but without laceration of the tendinous expansions which cover the outside of this process, so that no displacment of the epiphysis had occurred, nor could it be moved except to a small extent upwards and downwards. A considerable collection of pus was found also below and in front of the trochanter. The absence of displacement in the fragment, with its peculiar and limited motion,

sufficiently explained why the fracture could not be detected during life."

The cause of the accident in my case is still to some extent a mystery. Could the fracture have occurred from muscular action on the occasion described, when the lad leaped or threw himself from the fence in pursuit of his ball? I have thought this not improbable, and the process being firmly held by the tendinous expansions covering it, allowed of his walking with comparative ease for several days, until these suddenly giving way, either from ulceration or periosteal effusion, produced the agonising pain and instant lameness described as occurring while standing at his desk.

Although there was at the time an absence of all history of injury to the bone, I examined the limb most carefully on the occasion of my second visit, but failed to discover any of the ordinary symptoms of fracture in that locality, such as crepitus, inversion, eversion, &c. There was neither shortening nor lengthening of the limb, for after the consultation with Dr. Fenwick, or, if I mistake not, in his presence, I measured most accurately without discovering either of these signs. The absence of crepitus is readily understood when we consider that early in the accident the fractured epiphysis was no doubt bound down firmly by the tendinous expansions, (which it will be remembered was the cause of absence of crepitus in Mr. Key's case,) while later on the effusion of serum and blood which followed, would effectually separate the fractured surfaces and obscure this sign.

The other points of interest in the case were the unmistakeable signs of blood contamination, as evidenced in the enlarged parotids and painful joints, which, however disappeared with remarkable rapidity as soon as the periosteum was opened and the pent up pus dislodged. It is more than likely that had the incision been delayed many hours longer, the pyæmic symptoms would have made such headway as to have got beyond all control, and life would have

been destroyed much more rapidly than was ultimately the case. The paralysis of the left arm, which occurred on or about the tenth day of my attendance was as complete as that which occurs from fracture of the spine or other cause of pressure on the cord, entirely destroying its function. Motion, however, in the opposite arm and leg was unimpaired, so that it is not easily explained on the supposition of local effusion, as both sides, and in fact every part below that would have participated in the paralysis. There is no doubt but by the time this symptom appeared all power was lost in the fractured limb, which was also the left, but this I attributed to the extensive disease going on in the thigh, although I have since thought that the same cause, such, for instance as a pyæmic abscess in the brain, might have produced loss of power in both arm and leg.

Periscopic Department.

SURGERY.

A Case of Total Extirpation of the Larynx with the Hyoid Bone, and a portion of the Tongue, Pharnyx and Œsophagus. By B. Von Langenbeck, Prof. in the University of Berlin.

Gentlemen,—The preparation which I beg to lay before you is worthy of attention on account of the unusual extent to which the cancerous degeneration has reached in the larynx and beyond it. It was necessary on this account to remove the whole larynx with the epiglottis, the hyoid bone, and the posterior third of the tongue, as well as the anterior and lateral portion of the pharynx with the pharyngo-palatine arch, and a small part of the œsophagus. I will give first a brief statement of the history of the disease.

A master smith named Krause, of Brandenburg, aged

fifty-seven, was admitted into the hospital on November 29, 1874, with violent dyspnœa, threatening suffocation, attacks of cough attended with a whistling sound, and a cyanotic tint of the face. It was impossible to obtain the anamnestic circumstances of the disease from the patient himself; and we only learned that he had been a healthy and strong man up to about four years previously, when he suffered from hoarseness and difficulty of breathing, and for some time he had been treated in Berlin by cauterisation of the larynx. Laryngoscopic examination, which was very much impeded by the difficult respiration, showed, ulceration at the anterior commissure of the vocal cords and a defect of the arytenoid cartilage. The evening temperature was 38·2 Cent. (100·76 Fahr.) On November 30 tracheotomy was performed, under chlorofrom. The upper rings of the trachea were ossified, and were divided with difficulty; and after the trachea had been opened, the introduction of the cannula was hindered by incessant and long-continued paroxysms of cough. By these, a quantity of thin purulent sputa was expectorated and he was considerably relieved. Some infusion of ipecacuanha, with morphia, was given. The tormenting paroxysms of cough with abundant expectoration of purulent sputa and acute fever, continued until December 10. The fever then ceased, the sputa became mucous, and the operation wound healed leaving at the end of December only the fistula in which the cannula lay.

An examination made at this time revealed distinct enlargement of the larynx, and tenderness on pressure. The lymphatic glands in the right inframaxillary region, were swollen. Nothing abnormal could be detected on inspection of the mouth and fauces; with the finger, the epiglottis was felt to be swollen. The laryngoscope showed remarkable œdematous swelling of the epiglottis and of the ary-epiglottic ligaments, so great that it was impossible to obtain a view of the cavity of the larynx and of the rima glottidis.

Extirpation of the larynx was urgently recommended at this time ; but the patient refused to submit to the operation, and left the hospital on January 11, 1875.

On July 1, Krause was re-admitted. Breathing had been carried on with perfect freedom through the tracheal tube ; but lately there had been increasing difficulty of deglutition, so that the patient was now only able to take fluid food. The larynx, so far as could be ascertained by palpation, was swollen, widened, without distinct outline and hard. On both sides of the neck, infiltrated inframaxillary glands could be felt.

On pressing down the tongue, a yellowish red nodulated mass was seen to project behind the root, which we were inclined to regard as the diseased epiglottis. Laryngoscopic examination was impossible, in consequence of the masses of mucus which filled the pharynx and completely closed the upper opening of the larynx. In this region the finger felt a ragged nodulated swelling, which prevented the finger from penetrating further into the pharynx. The patient's general condition and strength were satisfactory.

Extirpation of the larynx was performed on July the 21. The patient having been narcotised by chloroform administered through the trachea was enlarged downwards, and Trendelenburg's tamponcannula was introduced and fixed into the trachea by pumping air into the India-rubber bag. Anæsthesia was kept up to the end of the operation by administering chloroform through a tube introduced into the cannula.

I performed the operation in the same way as I had devised in 1854 in a similar case, in which however, operative procedure was finally abandoned.

A transverse incision was made two centimetres (0·8 inch) above the hyoid bone, from the inner edge of one sterno-mastoid muscle to that of the other. From the centre of this incision another was carried in the middle line, over the larynx, close down to the tracheal fistula, the upper cicatrix of which, however, was not divided. The skin was

then turned back in two flaps, and the larynx (thyroid cartilage) was laid free. The infiltrated lymphatic glands, with the right submaxillary gland, were then extirpated ; the mylo-hyoid, digastric, and hyo-glossus muscles were cut through above the hyoid bone, the lingual artery was exposed and tied ; the glands were then removed on the left side, and the lingual artery was tied. The operation was considerably impeded by the unusual shortness of the patient's neck by the fusion of the soft parts with the larynx, probably induced by the long retention of the cannula. The stripping off of the soft parts from the thyroid and cricoid cartilages could only be imperfectly accomplished ; and the intention of dissecting off the pharynx and the upper end of the œsophagus from the larynx had to be abandoned, as the cancer had invaded the first-named of these parts.

It being then impossible to preserve the anterior wall of the pharynx and œsophagus, we proceeded to lay open the fauces. The larynx being drawn forward and downwards by a sharp hook fixed in the hyoid bone, the point of the tongue was drawn out of the mouth by means of a thread passed through it, and the root of the tongue was cut through about four-fifths of an inch above the hyoid bone. The superior thyroid arteries were then tied, and the lateral wall of the pharynx cut through. Finally the pharyngo-palatine arches, which were stretched forward by the strong dragging of the larynx, were divided. The external carotid artery, which was drawn forward with the lateral wall of the pharynx was then laid bare on each side, tied in two places, and cut through between the ligatures. The lingual and hypoglossal nerves were also exposed and divided.

The larynx now remained connected only with the trachea ; and the latter was divided close blow the cricoid cartilage, so as to leave the tamponcannula in the tracheal fistula.

The anterior cervical region from the chin nearly as far as the manubrium sterni, showed now a large opening at the

bottom of which the spinal column, covered by the posterior wall of the pharynx and œsophagus, lay exposed. The skin of the neck, which had been divided by the transverse incision, was turned over in two flaps like a collar. The trachea sank downwards, so that the cannula lay close above the sternum. At the end of the wound were seen the velum palati and the broad wounded surface of the tongue. On inspection through the mouth, the anterior part of the tongue was seen to be quite pale ; it had receded from the lower jaw, and was completely immovable.

The muscles divided and removed in the operation, besides the small laryngeal muscles, were the sterno-hyoid, sterno-thyoid, crico-hyroid, and mylo-hyoid, digastric, genio-hyoid, stylo-hyoid, and stylo-glossal ; the stylo-pharyngei, glosso-pharyngei. and palato-pharyngei. Forty-one ligatures were applied to vessels, viz., to the external maxillary, lingual, superior thyroid, external carotid, and laryngeal arteries ; and both hypoglossal and lingual nerves were divided. Along with the infiltrated lymphatic glands I had removed both submaxillary glands, feeling that these glands, which were apparently somewhat enlarged, might become diseased.

Notwithstanding the extent of the wound and the length of the operation, which lasted two hours, there was comparatively little exhaustion. The patient's appearance was good : pulse 80, full and strong ; temperature 36·8° Cent. (98·25° Fahr.). I belive that this is mainly to be ascribed to the circumstances that complete chloroform-narcosis was steadily kept up by the help of the plug in the trachea from the beginning to end of the operation ; that we were able to completely prevent the flow of blood into the air-passages ; and that, the operation being performed by careful anatomical dissection without any bruising or laceration of the parts, we were able to tie the great vessels before dividing them.

After the operation was completed, and the patient had awakened from the anæsthesia, some Hungarian wine was

given to him through an œsophageal tube, the tampon-cannula was removed and an ordinary strong tracheal cannula substituted. In order to prevent the mucus which was abundantly secreted by the remaining part of the fauces, from coming into contact with the cannula, a compress soaked in a solution (one-third per cent.) of salicylic acid was placed round the neck so as to cover the wound. I abstained from attempting to unite the wound in the cervical integuments by sutures, fearing that the stretching of the parts would favour the burrowing of the secretions from the wound between the divided cervical fasciæ. The flaps of skin on the two sides of the neck were therefore simply laid down in place, and supported by the above-mentioned salicylised compress.

July 22. The patient had vomited twice since the preceding evening (after effect of the chloroform) ; in other respects his condition was good. Pulse, full and strong, 80 ; temperature, morning 38·6° Cent. (101·48° Fahr) ; evening, 39·8° Cent. (103·64° Fahr.). He was fed three times daily through the œsophageal tube, and had nine eggs, milk, soup, and about a pint of Hungarian wine in the day.

July 23. There was abundant expectoration of thin mucus through the cannula. Temperature, morning, 38·6° Cent. (101·48° Fahr.) ; evening, 39·4° Cent. (102·92° Fahr.) ; pulse, 80.

July 25. The patient passed a good night. Since the preceding day there had been diarrhæa, for which fifteen drops of tincture of opium were ordered. The temperature and pulse were as on the 23rd. On account of fœtor, the cavity of the mouth was several times washed out with salicylised water. By means of a large sponge, which was pressed above the cannula against the posterior wall of the pharynx, overflow into the trachea was prevented, and the mouth and fauces were carefully wiped with a solution of salicylic and boracic acid.

July 26. There was still abundant purulent secretion ; but respiration was perfectly free and quiet. Pulse full,

strong, regular. Evening temperature, 38·2° Cent. (100·76° Fahr.).

July 28. The patient's general condition remained good; he was free from fever.

In the preparation, the anterior wall of the œsophagus and pharynx is cut through, larynx is cut away from behind, and the hyoid bone sawn through in the middle. The cancerous degeneration has so complelely involved the upper division of the larynx. the epiglottis, and hyoid bone, that it is difficult to recognise the individual parts. The inner surfaces of the cricoid and thyroid cartilages, as far as the laryngeal pouches and the inferior vocal cords, are free. The morbid change begins close above the laryngeal pouches, and in the form of nodulated masses, completely fills the whole upper part of the laryngeal cavity. The arytenoid cartilages and the ary-epiglottic ligaments are completely lost in the tumour. The epiglottis is recognisable in a somewhat separate mass, in which some fragments of the œsophagus can still be recognised. The hyoid bone is surrounded by the swelling, which was growing upwards into the base of the tongue.

The anterior surface of the hyoid cartilage and the ring of the cricoid cartilages have remained quite free from disease. The tongue is divided in front of the papillæ circumvallatæ, and the cut surface shows healthy tissue. The removed larynx, hyoid bone, and tongue are about 4·4 inches long, of which 1·2 inches belong to the tongue.

You are aware, gentlemen, that after Czerny had demonstrated by experiments on dogs the possibility of extirpating the larynx (*Wiener Medizinische Wochenschrift*, nos. 27 and 28, 1870), the first extirpation of the larynx in man was performed by Billroth. On December 31, 1873, he removed the larynx from a schoolmaster, aged thirty-six, on account of diffuse epithelial cancer, A part of the two upper tracheal bags, and the whole of the cricoid, arytenoid and thyroid cartilages were removed, and a third of the base of the gullet was taken away. The œsophagus and pharynx,

the anterior and greater part of the epiglottis, and the hyoid bone, were preserved. The patient was dismissed cured on March 2, 1874, able to speak intelligibly by means of an artificial larynx (Dr. C Gussenbauer, in *Archiv für Klinische Chirurgie*, Band xvii. 1874).

The second operation, for partial extirpation, was performed by Heine, of Prague, in a case of stenosis of the larynx. How much of the larynx was removed I do not know; and regard to this I must refer you to the forthcoming transactions of the fourth German Surgical Congress, held in April of the present year, at which the patient operated on by Heine was shown.

A third operation of this kind performed on August 12, 1874, by Dr. Moritz Schmidt, of Frankforr, who removed the cricoid, thyroid, and arytenoid cartliages from a cattle-dealer, aged, fifty-six, on account of carcinoma of the larynx, producing narrowing and symptoms of suffocation. The patient died of collapse on the fifth day after the operation.

With regard to the steps of the operation, I must inform you that Billroth and Schmidt made a longitudinal incision upwards from the hyoid bone, and removed the larynx by cuttingh throug the trachea from below; while I made a T-shaped incision, freed the larynx from its connection above by careful dissection, and divided the trachea last of all. I would recommed my method also in cases where the larynx alone is to be removed, and the epiglottis, hyoid bone, and tongue, are to be preserved. By performing extirpation from above, it becomes possible to expose and tie the principal arteries before dividing them, so as to reduce the loss of blood to a minimum and prevent the escape of blood into the trachea, even when one operates without plugging the trachea, or when the plug is spoiled. I must however, attach the greatest importance to the plugging of the trachea; and it is advisable always to have at hand several of Trendelenburg's tamponcannulæ in case that one or other of them should fail.

In order to be able to carry out the plugging as quickly

as possible, it is advisable to perform the tracheotomy before proceeding to extirpate the larynx. Indeed, in most cases it will be possible to wait for the cicatrisation of the tracheal fistula before proceeding to the principal operation. The advantage is gained by this, that the trachea, being united to the skin in the region of the fistula, does no sink downwards as is otherwise the case, and that the process of stitching the skin of the neck to the trachea may be omitted.

In the cases operated on by Heine and Billroth, an artificial larynx was fitted on soon after the operation. In my patient, the large traumatic cavity, extended far beyond the limit of the larynx, will render this impossible, and it will be necessary to wait for the cicatrisation of the wound. How this will take place if the case continue to make favourable progress, and whether in the perfectly immovable state of the remnant of the tongue, the power of swallowing may return, I am not able to foresee.—*London Medical Record.*

The Case of the late Prof. J. Hughes Bennett. By W. CADGE, F. R. C. P., Surgeon to the Norfolk and Norwich Hospital.

Professor J. Hughes Bennett died at Norwich on Sept 25th, 1875, aged 63.

A narrative of his illness, so far as it is known to me, particularly of the last complication which led to his death, will have a sad interest for those who knew and loved him as a friend or teacher; and a deep professional, as well as a sad, interest for those, and they have been many, who from time to time, have used their best skill and thought to detect and unfold the hidden cause of his mysterious case. I know not exactly when or how Dr. Bennett's first failure of health commenced; but it was many years ago. The most prominent and persistent of his early symptoms were those of a bronchitic and laryngeal affection, which were sometimes urgently alarming, sometimes almost recovered from, were readily reproduced, and did frequently recur up to the very last.

By slow degrees, his general health failed, he grew thinner, looked paler and lost strength. A few years ago it was discovered that he had diabetes ; but this disappeared without any great rigor of treatment, and has not been thought or known to have recurred, except occasionally and very slightly. On this point, however, there may be room for doubt. Since the first discovery and the first disappearance of the sugar, I have reason to believe that examinations of the urine have not been frequently made. In conversations and in answer to questions on this subject Dr. Bennett always spoke of the diabetes as a thing of the past, and as not bearing with importance, or as having much influence, on his steady deterioration of health ; at no time had he thirst or diuresis ; and, therefore the malady did not impress itself on his thoughts by the usual general symptoms. Very recently, however, (in August) sugar was again found ; and I have before me a paper containing observations on the urine made three times daily during the first half of September, 1875 ; from which it is shown that while the specific gravity and the quantity of the urine were but little, if at all, above the natural standard, sugar appeared and disappeared in a quite irregular and intermitting way, thus the urine passed during the night gave a dense deposit, with Pehling's test on five out of fourteen days ; that passed at mid-day on six, and that passed in the evening on four out of fourteen days ; while in all the other observations, no sugar was found. During this period his diet was very similar from day to day ; consisting of fish, a little meat, pudding or tart, fruit and sherry ; very little bread and no potatoes.

If, as I have said, in this long interval between the first and last clear recognition of diabetes, the urine was but seldom examined, and when examined, chanced to be free from sugar, it seems probable that glycosuria, in one of its intermittent and milder forms, existed throughout, and was the true and chief cause of the emaciation and debility which in any other hypothesis, it has been found so diffieult to explain.

Be that as it may, his health continued to decline. The last three winters he passed in the south of France, with some benefit, possibly, to his bronchial and laryngeal affection, but apparently without any effect on his general state. For many years. Dr. Bennett had suffered from occasional attacks of gout ; and he was liable, too, to lithic acid deposit in his urine ; occasionally for several years, he had experienced some slight impediment and irritation in making water, which he thought to be due either to slight stricture or to prostatic enlargement. From time to time, a simple catheter was passed, but no stricture was discovered. Last winter at Nice, he had rather more vesical irritation than usual. On his way to England, in June, he stayed for a time on the borders of the Lake Geneva ; and a letter received from him on July 1st will best describe his condition.

"I have long been intending to write to you in consequence of a malady which has been creeping upon me for some years, but which now is causing me no small anxiety Frequent micturition ; pain in the back, long thought to be lumbago, but which I now know to be renal ; sediments of uric acid, and attacks of acute gout in the right foot, and one in the stomach, have indicated during the last, say four years, pretty clearly the general diathesis and approaching local disorder. About three months ago, at Nice, I was suddenly seized with pain during micturition, extending to the extremity of the urethra, and passed about a tablespoonful of bloody urine, mixed with gravel. The bladder was irritable for about twelve hours. Lying in bed, poultices, and some alkaline water, got rid of it. Since coming here, four weeks ago, I have been sensible of dull pain in the perinæum ; had two more attacks of irritable bladder, passage of blood, etc. Whether all this signifies irritable bladder, prostatic or renal disease, or stone, I cannot tell. Can you suggest what should be done ? I have given up wine, beer, acids, fruit and sugar ; take a good deal of milk, little meat ; indeed, the desire for animal food is small. I continue pale, weak, and emaciated ; I apply poultiees to relieve local pian,

and take about twenty grains of bicarbonate of potash thrice daily, in the slightly alkaline waters of this place ; I also take fifteen drops of vin. sem. colch. every other night or so. It may be only gout, but I dread stone. My urethra is very irritable ; and the last time a catheter was passed I nearly fainted. This was two years ago ; and I was then assured that there was no stricture or prostatic disease, merely a weak bladder."

In July, he came to Norwich, looking more emaciated, pale, and ill than I had ever seen him. On carefully sounding, a stone was readily felt, apparently of some size ; the bladder was capacious and healthy, and could retain nearly half a pint of urine ; the prostate was slightly enlarged ; the, urethra very sensitive and irritable ; the urine was clear acid, specific gravity 1,020, and contained no albumen. He was much depressed by the knowledge that he had stone, but his innate force of character came to his aid ; he looked the difficulty in the face, and was prepared at once to undergo treatment. It was not without difficulty that I induced him to go to Edinburgh in the first week of August ; there were many reasons which made a visit there desirable, travelling did not add much to his troubles ; and I confess that I was not without the hope, that once there, he would be persuaded to ask, and would see the wisdom of accepting the aid of one of his distinguished colleagues and friends. While there, he received much comforting and valuable encouragement, but his symptoms increased in severity. He wrote on August 18th : " There is now much more irritation than when I last saw you ; stooping and turning cause sharp pangs, and the close of micturition is very torturing." He returned to Norwich ; and the question of operation, lithotomy, or lithotrity, presented itself. Either must be attended with the greatest hazzard in one so worn and unhealthy ; but the thought of doing without operation was simply intolerable, and not to be considered. In favor of lithotrity, were the fair quietude and healthy condition of the bladder and urine ; but there were serious drawbacks. Dr.

Bennett was a man of high spirit and courage; but his courage fitted him rather to encounter one great risk than to endure the wear and tear of repeated operation, frequent use of instruments, and the probability (made more probable by the presence of glycosuria) of troublesome cystitis; the size of the stone alone could decide the point, and to ascertain this, Mr. Clover kindly came down and administered nitrous oxide, followed by ether; while, with the lithotrite I found that the stone measured 1½ inches by 1 inch. Such a stone as this was fairly within the compass of lithotrity in an otherwise favorable patient; but in this case I had not a moment's doubt, that lithotomy, if carefully and accurately done, notwithstanding its greater immediate risk, afforded the best chance of complete recovery. In this view the patient readily acquiesced; and on the following day, September 16th, I removed the stone by lateral lithotomy, assisted by Mr. Crosse, Dr. Beverley, and Mr. Hooker. The nitrous oxide and ether was again used by Mr. Clover, with admirable effect; there was never a movement of the patient, nor the least headache or sickness afterwards. The operation was easy and satisfactory. The transverse artery of the perinæum was large, and spurted freely; it was easily tied when the stone was removed; the blood was so thin, and so little disposed to coagulate, that every little vessel continued to ooze; and I deemed it best to plug the wound round a silver tube, rather than allow any quantity of blood to be lost. The stone was composed of lithic acid; it measured 1½ by 1 inch, and weighed 193 grains. No more blood was lost, and urine passed freely afterwards. He suffered considerable aching pain in the wound for some hours; but it was gradually checked by half a grain of morphia introduced into the rectum at thh time of operation, and twenty drops of Battley by the mouth two hours after. At night he turned cautiously on one side, took twenty grains of chloral, and had some hours' sleep. Pulse 90.

September 17th. Urine plentiful; he had pain only when

he moved. Pulse 96; temperature 102 deg. Tongue dry but clean. He had taken egg and milk and a few teaspoonfuls of brandy in soda-water; he had frequent cough and expectoration, which caused temporary pain in the wound.

September 18th. The tube and part of the plug was removed; after which the bladder was able to retain urine and empty itself by the wound every two hours. This caused considerable pain in the parts from smarting and spasm; but in a day or two when all the lint was removed, it abated, but never wholly ceased. Pulse 92; temperature 101 deg.

I need not record minutely the daily progress of the case. Suffice it to say, that for four or five days there was a good prospect of speedy recovery; he took food plentifully, and was in good spirits; and everything went on well so far as concerned the pelvis and bladder; the urine was easily caught and was clear, but loaded with sugar, with a specific gravity of 1030 to 1035. By degrees, however, the cough and expectoration became more frequent; and this, with the frequent spasm and larger amount of water secreted distressed him and prevented sleep. Opiates by the mouth or bowel relieved for the time, but were apt to be followed by sickness; chloral did not act well, and signs of increasdebility showed themselves. The pulse continued from 90 to 96, but became weaker and weaker. Aphthous patches gathered on the tongue and throat, and made swallowing difficult, and thus the prostration went on; and death from sheer exhaustion took place on the 25th, the tenth day after the operation.

Post mortem examination, forty-eight hours after death The body was emaciated; the surface pale and bloodless The blood was thin, and transuded through the vessels and stained the tissues. Only one small clot in the right ventricle of the heart was met with.—The *bladder* was perfectly healthy; its muscular walls were rather thin and dilated; its mucous membrane was pale and smooth.—The *prostate land* was enlarged to the size of a small apple; it projected

somewhat like a cornice into the bladder, and on this projecting part there were traces of slight ecchymosis beneath the mucous membrane. The lithotomy wound was clean and so slight, that looking from the bladder, none could be seen, and on closer scrutiny it was found that the knife had only divided the mucous membrane and had scarcely reached the left lobe—this, doubtless, explains the power of the bladder to retain urine the moment after the tube was removed.—The *kidneys* were slightly congested, but not unhealthy. — The *liver* weighed 4 lbs. 5 oz., and was healthy.—The *spleen* was greatly hypertrophied, and weighed 2 lbs. 12 oz. ; texture firm, of natural color and appearance.—The *stomach* and *intestines* were healthy.—The *heart* was large and flabby, and weighed 1 lb. 1 oz. ; its valves were healthy ; the left ventricle was empty ; the right contained a soft clot; the aorta was deeply stained by the colouring matter of the blood ; its walls were atheromatous, and there were several calcareous scales.—The *lungs* were emphysematous and œdematous ; there was some dilatation of the small bronchi; at the apices there were some small patches of collapsed lung-tissue ; no tubercle ; the right lung weighed 1¾ lbs. ; the left, 1½ lbs. There were some old pleural adhesions on the right side.—The *trachea* and *larynx* were pale and healthy.—*Head.* On raising the calvarium, a soft tumour was discovered situated on the right side of the head, about an inch above the ear, between the dura mater and the bone. It was about the size of a hen's egg, and projected towards the brain, so as to produce a deep pit or hollow into which it fitted. The convolutions were flattened and pressed down, but not otherwise altered ; no softening ; no congestion. The dura mater covering the tumour was somewhat thickened. The parietal bone was thickened and hypertrophied around the circumference of the tumour ; over it there was thinning by pressure and absorption, and at one point, about the size of a shilling, all trace of bone had disappeared, and it was replaced by fibrous membrane. The tumour had a cystoid character,

with a distinct investing membrane, and its contents consisted of a blackish pulpy material resembling the interior of a recent aneurism, or more closely of a myeloid tumour. Under the microscope, there were seen cells of various descriptions, plates of cholesterine, fatty granules, and altered blood-corpuscles.—The *brain* itself was anæmic, but not, on the whole, unhealthy ; it weighed 47 oz. The optic thalami, corpora striata, pons Varolii, and medulla oblongata had a somewhat shrunken atrophied appearance, and were, perhaps, harder and tougher than usual. The arteries were healthy, and, to the naked eye, the texture of the brain around them seemed natural. I will make no comment further than to say, that so far as I have been able to ascertain, Dr. Bennett never suffered from headache, giddiness, or any symptom directly indicative of such a lesion as that just described.

I may add, that Professor Sanders of Edinburgh, who happened to be staying in Norwich, visited Dr. Bennett a day or two before he died, and was present and kindly assisted at the *post mortem* examination.—*British Medical Journal.*

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

The annual meeting of the Medico-Chirurgical Society was held on Friday evening last in the Library of the Natural History Society. The President, Dr. Reddy, read an address giving a *resume* of the proceedings for the past year. A special vote of thanks was accorded to Dr. Roddick, the retiring Secretary-Treasurer, for the able and indefatigable manner in which he had filled the office since 1870. The following gentlemen were then elected officers for the ensuing year :—Dr. Godfrey, President ; Dr. F. W. Campbell and Dr. Drake, Vice-Presidents ; Dr. Roddick, Dr. Osler and Dr. Gardner, Council ; Dr. Bell, Secretary-Treasurer.

CANADA

Medical and Surgical Journal.

MONTREAL, NOVEMBER, 1875.

MEDICAL AMENDMENT BILL.

We lay before our readers the bill which is proposed to be introduce, before the Local Legislature of this Province of Quebec, with a view to its becoming the Law, in substitution of the act of 1847, under which the profession is at present governed. How far this bill is an improvement on the old act, remains to be seen. The act of 1847 admits of improvement, but we do not think that this bill in any way fulfills that desired end. In matters medical, we deem it advisable to avoid as much as possible all hasty Legislation. We have an act which is efficient, and under which the profession has prospered for nearly thirty years, and although not wedded to the present act, believing as we do that it can be much improved upon, yet to force on the profession a change without due and careful consideration, and without fully submitting the various provisions of the bill, to the members of the present College, would be a most high-handed measure, and one that we fear would lead to trouble. But let us carefully look into this bill and inquire how far its provisions are more desirable, than the act of incorporation passed in July, 1847. The very first clause of this Bill contains an allegation, which to say the least is questionable. It states that it is " highly desirable " that the medical profession of the Province of Quebec, " be placed on a more respectable and efficient footing." This commencement would lead the casual reader to suppose that the following clauses contain suggestions which are

in keeping with the advances of the day, and that as scientists, we were endeavouring to obtain an enactment which would raise the standard of medical education to the very highest pitch. Now we maintain that in our Province, we are far better off in that respect, than in some other parts of the Dominion, notably in the sister Province of Ontario, where the Profession is a most happy family, members of legitimate medicine being forced into communion with votaries of all the various pathys, who enjoy an equal status, and are possessed of equivalent rights, and furthermore are the very arbiters to settle the question, of who shall, and who shall not be, in future, admitted as practitioners of Medicine, Surgery and Midwifery, amongst them.

There is one feature of this Bill that we think very objectionable. The college of Physicians and Surgeons, for the Province of Quebec, as at present constituted, is open to all comers who hold the License of the College for four years. On payment of the small fee of ten dollars, and an annual subscription of two dollars, Licentiates become Members, and are eligible for election to the governing board. The College has granted its license to some 1,500 practitioners, but not more than 150 of these gentlemen have availed themselves of the privilege of membership. If the profession as a body politic cares so little about privileges that are open to it, we scarcely think that it will be legislated into altering its opinion or course of action. The present Members of the College, have complied with the law and contributed to the funds of the College, furthermore, they have assisted with their annual subscription in defraying the working expenses of the College. The College possesses a fund which we hope to see increased, so as to give it a permanency, in the acquisition of property, in the form of a building, library and museum, which each individual member will take pride in augmenting. These are the circumstances and conditions which will place the medical profession in this Province on "a more respectable and efficient footing," and not the very doubtful measure

of forcing these privileges by Act of Parliament on all members of the profession.

We pass over several clauses to which we can have no objection as they are mere matters of detail bearing on the election of the governing board of the College, but we may observe, that we do not regard this method of election in any way an improvement on the present system of election.

We come now to clause seven bearing on the qualification of those about to commence the study of medicine. This is a most extraordinary clause, it prescribes that a person must pass a preliminary and satisfactory examination on the following branches: (Then follow a list in conformity with what is demanded by the Council for Medical Education and Registration of Great Britain.) But at the latter part of the clause we read that the College may exempt from classical examination any person being the bearer of a diploma of Master of Sciences or a certificate testifying that he has successfully followed in a good educational establishment a course of study comprising the branches hereinbefore mentioned; now it strikes us that the promoters of this bill may possibly mean "Bachelor of Arts," instead of Master of Sciences, the latter is a degree which we do not believe is conferred by any University in the country. But then again, exempting from examination the bearer of a certificate of qualification from any good educational establishment appears to us to be a retrograde movement, and one which will not tend to place the medical profession in this Province on a "more respectable and efficient footing." With respect to the curriculum of study presented, it is meagre and deficient in many respects.

At clause ten, we read that no Student shall receive the College License, unlese he shall have passed a satisfactory examination, before the Board on the several branches, enumerated in the foregoing section.

Provided always that it shall be lawful for the said Board to grant the College License, without examination to any person bearing a diploma from a Canadian Incorporated

University, or School of Medicine, on condition that the same has been obtained, agreeably to the following regulations :

The regulations provide that the teaching bodies shall have hospital accommodation for their students, and other necessary apparatus and plates, without which a course of Lectures on any branch connected with Medicine, would be uninstructive, and furthermore, that all teaching bodies shall submit to the supervision in their examinations, of a committee of gentlemen, appointed by the Board, with a view of ascertaining if diplomas are granted according to the merits of the students.

Now this in principle, we object to. If we are to have an alteration in the present law, let us have but one door of entrance to the profession.

The license to practice should be accorded after due study and successful examination. The diploma of a University or incorporated school, is an honorary qualification, and can give no legal right to the holder of it to practice his profession. Allow the schools to teach as pleases them best. If they teach dishonestly the result will soon become apparent, but the College of Physicians and Surgeons, which is the administrator of the law of the land, ought to be empowered to test to the fullest extent the qualifications and knowledge of those who undertake the responsible duties of a Physician, Surgeon and Accoucheur.

There is one other point which we deem it advisable to mention, one which we doubt not has escaped the promoters of this bill, though we feel certain that they will agree with us in its necessity. Like all societies of men we are liable to admit into our ranks unworthy members. We think the college should have the power of removing unworthy members by expulsion,—such expulsion to deprive the unworthy member of all right to practice his profession. We observe in the Legal profession an erring brother can be brought up and reprimanded or deprived of his gown by the Council of the Bar of his district ; why should not the

Medical profession secure similar powers,—then, indeed, should we be moving in the right direction, and seeking to place the Medical Profession of this Province on "a more respectable and efficient footing."

We do not oppose the alteration of the present law, but we do say, let us in all decency submit the proposed amendments in regular form to the members of the College. There is no hurry, the profession is not without a good act, and there is no time between this and the 20th of November to fairly go into this measure; the present time is inopportune. The schools and Universities are in full session; many of the members of the College are busily engaged in the labour of teaching. This matter should not be hurriedly put through, but carefully and intelligibly discussed, at as full a meeting of the members of the College as can be summoned. We say as can be, because there is no provision in the act under which we are governed whereby a general meeting of the members of the College can be called except at the regular triennial meeting. Parliaments are jealous of any infringement of laws or acts which have an existence, so that in presenting a bill of amendments which has not been conceived and brought forth in regular order, the promoters of the bill will place themselves in the position of being refused, and of seeing all their labor go for naught.

BILL.

An Act to incorporate the Members of the Medical Profession, in the Province of Quebec, and to regulate the Study and Practice of Physic and Surgery therein.

1. WHEREAS the laws now in force for regulating the practice of Medicine, Surgery and Midwifery require amendment; and whereas it is highly desirable that the Medical Profession of the Province of Quebec, aforesaid, be placed on a more respectable and efficient footing, and that better means should be provided for the conviction and punishment of persons practising Medicine without license: Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Legislative Council and of the Legislative Assembly of the Province of Quebec, and it is hereby enacted by the Authority of the same, that from and after the passing of this Act, the Act or Ordinance of the Legislative

Council of the late Province of Quebec, passed in the twenty-eighth year of thereign of His late Majesty King George the Third, and entituled: *An Act or Ordinance to prevent persons practising Physic and Surgery within the Province of Quebec, or Midwifery in the Towns of Quebec and Montreal, without license*, and all other Acts or parts of Acts in any manner relating to the mode of obtaining Licenses to practice Physic, Surgery or Midwifery shall be and are hereby repealed, except in so far as relates to any offence committed against the said Acts or any of the same before the passing of this Act, or to any penalty or forfeiture incurred by reason of such offence.

2. And whereas it is expedient that the Medical Profession, within the Province of Quebec, be empowered under certain restriction, to frame its own statutes for the regulation of the study of Medicine in all its departments and By-laws for its own government, be it therefore enacted that from and at the passing of this Act, all Physicians empowered to practice Physic, Surgery and Midwifery within the Province of Quebec, and thei, successors shall be and are hereby constituted a body politic and incorporate by the name of *The College of Physicians and Surgeons of the Province of Quebec*, and shall by that name have perpetual succession and a common seal, with power to change, alter, break or make new the same; and they and their successors by the name aforesaid, may sue and be sued, implead, and be impleaded, answer and be answered unto in all Courts and places whatsoever, and by the name aforesaid shall be able and capable in law to have, hold, receive, enjoy, possess and retain for the ends and purposes of this Act and for the use of the said College, all such sums of money as have been or shall at any time hereafter be paid, given or bequeathed to and for the use of the said College; and by the name aforesaid shall and may at any time, without any Letters of Mortmain, purchase, take receive, have, hold, possess and enjoy any lands, tenements, or hereditaments, or any estate or interest derived or arising out of any lands, tenements or hereditaments or the purposes of the said College, and for no other purposes whatever; and may sell, grant, lease, demise, alien or dispose of the same, and to do or execute all and singular the matters and things that to them shall or may appertain to do in the premises; Provided always that the real estate so held by the said Corporation shall at no time exceed in value the sum of one thousand pounds.

3, And be it enacted, that from and after the passing of this Act, the persons who compose the College of Physicians and Surgeons shall be called "*Members of the College of Physicians and Surgeons of the Province of Quebec.*"

4. And be it enacted, That the affairs of the said College shall be conducted by a Board of Governors composed, first, of two delegates from each of the Universities, Colleges, or Schools of Medicine incorporated within the said Province, giving medical tuition according to the Provisions of this Act, or which shall be established hereafter; provided that no professor belonging to any of these teaching Bodies shall be eligible to be a member of the Board, except as a representave of the College by which he is delegated; 2. of 24 Members elected by the registered Physicians of the Province, one member being elected for each territorial division having a member in the Legislative Council by the registered Physicians residing within said division; and the mode of election together with the time thereof shall be determined by a By-law of the Board, and in default thereof, by the Lieutenant-Governor in Council.

The Members of the Board shall be elected for three years; but in case of decease or resignation, a new election shall be held if the member represent a said territorial division, or in the case of a delegate from an University, the University shall appoint another member to replace the member deceased or resigned.

The first election of Members to represent the territorial divisions and the

incorporated Universities or Schools on the Board shall be held on the , and the present Board shall fix and determine the place within reach of the divisions, name and appoint Returning officers, and shall take all necessary measures for that purpose. In case of contestation, the Board shall decide and adjudge, and if the election be null or illegall, they shall order another to be held.

All physicians within the Province empowered to practice Physic, Surgery and Midwifery, shall be entited to vote and may be elected Governors at the first election.

But no person shall vote at any of the subsequent Elections, nor be eligible as Governor, unless he shall have previously paid up all dues imposed by and satisfied the new Board.

The Board shall name and appoint a President, a Vice-President, a Reg istrar, a Treasurer, and all other officers required for carrying out the provisions of the law.

Within each territorial division, a medical association may be established (agreeably to the By-laws of the Board) of which all Physicians residing within said Division shall form part, and of which the representative on the Board shall be the *ex-officio President.*

5. And be it enacted, that the said Board of Governors, shall be, and they are hereby constituted "*The Provincial Medical Board,*" in which capacity they shall meet for the examination of candidates not less than twice in each year, at the time and place as to them shall be deemed most fit, and on which occasions seven members shall be a *quorum* for the transaction o business.

6. And be it enacted, That from and after the passing of this Act, no person shall be admitted as a Studeut of Physic, Surgery or Midwifery, unless he shall have obtained a certificate of qualification from the said Provincial Medical Board.

7. And be it enacted, that no certificate of admission to the study of Physic as aforesaid shall be allowed by the said Board to any claimant of the same, unless he shall have passed a preliminary and satisfactory examination on the following branches; English, French, Latin, History, Geography, Mathematics, Algebra, Geometry, Natural Philosophy and Physics and unless he shall be the bearer of a Certificate vouching for his good moral character. Provided always that it shall be lawful for the said Board to exempt from classical examination any person being the bearer of a diploma of Master of Sciences or of a certificate testifying that he has successfully followed in a good educational establishment a course of study comprising the branches hereinabove mentioned.

8. Be it enacted, that from and after the passing of this Act, no person shall practice Phisic, Surgery or Midwifery, unless he shall have obtained a license for that purpose from the said Provincial Medical Board.

9. Be it enacted, That no person shall apply for, or be entitled to, a College License unless he has followed uninterruptedly during a period of (not less than four years, to be reckoned from the date of his admission by the Board to the study of Physic), in some incorporated Canadian University, College or School of Medicine, two six months' courses of Anatomy and Physiology—of Practical Anatomy—of Surgery—of Practice of Medicine—of Midwifery—of Diseases of Women and Children—of Chemistry—of *Materia Medica* and Pharmacy—*one six* months's course of Institutes of Medicine—One three months' course of Medical Jurisprudence and Toxicology—one three months' course of Botany—one six months' course of Clinical Medicine—one six months' course of Clinical Surgery—one three month's course Lying in Hospital (or a certificate testifying that he has attended six accouchments—a three months' course of Hygeine—of Practical Chemistry—of Practical Surgery—and produce a certificate of his age of majority and of a good moral character.

10. And be it enacted, That no student shall receive the College license unless he shall have passed a satisfactory examination before the Board on the several branches enumerated in the foregoing section.

Provided always that it shall be lawful for the said Board to grant the College License without examination to any person bearing a diploma from a Canadian Incorporated University or School of Medicine, on condition that the same has been obtained agreeably to the following regulations:

1st. All Bodies teaching Physic, Surgery, and Midwifery shall be held to have for the use and practice of the Students an hospital containing at least fifty (50) beds, a lying-in ward with twenty-five beds at least, a library, a cabinet or laboratory of Natural History and Botany, supplied with such instruments and articles as may be deemed necessary by the Board to enable Professors to illustrate and explain their teaching.

2. A Committe of three Members, of whom two shall be the nominees of the Board and the third one of the Government, shall attend the examinations of Students at the Incorporated Universities or Schools of Medicine, with a view of ascertaining if diplomas are granted according to the merits of the Students, and if the provisions of the law are duly carried out, and if, according to the report of the delegates, there shall be any infringement of the same, it shall then be lawful for, and the right of the said Board to examine those students *de novo*, or to refuse to the same the College License

11. And be it enacted that the said College shall have power to make rules with regard to the admission by the Universities of Students of Medicine from foreign countries, and also with regard to the granting of the College License to bearers of diplomas from foreign Universities, and to cause to see established on oath, (to be administered by the Chairman for the time being) the truth and genuineness of all assertions or letters of introductions made or presented by any claimant to the privilege of studying or practising Physic; and to make and enact all such rules and regulations as may be necessary for the Government and proper working of the said Corporation, which said rules and regulations shall, before they shall come into effect, be sanctioned by the Lieutenant-Governor in Council.

12. And be it enacted and declared that it is and shall be sufficient that the said Schools of Medicine shall yearly cause to be delivered one hundred and twenty lectures on the subjects by law provided, in the English language or in the French, without its being necessary that any lecture should be delivered in both languages, and each lecture in whichever language delivered, shall be reckoned as one of the one hundred and twenty.

13. And be it enacted, That all persons obtaining a License to practice from the College of Physicians and Surgeons of the Province of Quebec, shall be styled *Licentiates* of the said College, and be consequently in due course of time eligible to be elected Members of the said College, and such persons so elected shall be at once eligible for election as Governors; and the said election, either as members of the said College, or as Governors thereof as aforesaid, shall be made under such rules and regulations therefor, and in such manner as the said Corporation shall make therefor, to be sanctioned by the Governor of the Province in manner aforesaid.

14. And be it enacted, That the Board of Governors aforesaid shall regulate the fees to be paid by all candidates to the study of Medicine, provided the amount of said fees shall not exceed the sum of five dollars; and also by all persons who obtain from the said Board a license to practice Medicine; provided that the said fee do not exceed the sum of ten dollars; and the said Governors shall have the power to dispose of the saidfees in such manner as they shall deem most proper for the interests of the College.

15. That no midwife shall be permitted to practice midwifery unless she has presented herself for examination before the Board and obtained a license for the purpose of the said practice. The Board whenever deemed by them necessary and proper, may order that a theoretical and practical course of midwifery bo followed by said females.

16. And be it enacted, That each Medical Practitioner from and after the

sanction of this Act shall be bound to have his name registered within one year, and for such registration fee he shall pay a sum of
under the penalty of a fine of
which said fine shall be payable yearly until said practitioner has complied with the law.

17 Any Physician convicted of felony before a Court of Justice, shall forfeit his right as such.

18. And be it enacted that each practitioner whose name shall not have been enregistered as aforesaid, shall forfeit his right of legally suing for medical services.

19. Be it enacted that no person shall be appointed a Physician in the public service of this Province, or to an hospital, nor shall he receive any fees from Government, unless his name has been duly enregistered as aforesaid.

20. Be it enacted,that any person whose name shall not be enregistered as aforesaid,and who shall be convicted of having practised Medicine, &c., shall on summary conviction before a Justice of the Peace, be condemned to pay a fine not exceeding $100.00, and of not less than $25.00.

The same penalty shall be incurred by each and every person taking the name of or styling himself a Dr. or assuming any other qualification implying that he is legally authorised to practise physic, or offering his services as a Physician.

A similar penalty shall also be incurred by any individual advertising in public newspapers the sale of drugs or medicines for procuring abortion, or other immoral purposes, and also by the proprietors of such newspapers.

21. Be it enacted, that the Books of enregistration shall be held a legal proof in all Courts of Justice.

22. Be it enacted, that in all suits, the proof of enregistration shall be incumbent on the prosecuted party.

23. Be it enacted that all legal suits shall be brought before any justice the peace having jurisdiction within the place where the offence shall have been committed.

24. Be it enaced, That such justice of the peace, beside the above mentioned penalty, shall have the power to convict with costs, and in case such costs and penalty should not be paid, to order imprisonment for a term not exceeding 30 days.

25. Be it enacted, That any person convicted of illegal practice, who shall give notice of an appeal from the judgment of a justice of the peace, shall before he be set free, give bail to the amount of the penalty, costs of judgment and appeal.

26. Be it enacted, that the said penalties shall be paid to the justice of the peace, and by the latter to the Treasurer of the Board. Any person may sue in his own name, or enter a complaint before the Court, and the Board shall be authorised to allow the prosecuting party the whole or part of the penalty, provided always that it shall be in the power of the Board to stop all proceedings by an order signed by the President.

27. And be it further enacted, that this Act shall be a public Act, and that it shall be held and received as such in all Courts of Justice, and by all persons within this Province.

Obituary.

WILLIAM R. BEAUMONT, F.R.C.S., ENG.*

By the death of Dr. Beaumont the Medical Profession of Canada has lost one of its brightest ornaments. The subject of the present notice was born in London, in 1803, and was descended from a family established in England in the

* The Data for this notice have been supplied by Dr. Temple and H. Beaumont, Esq., and we are indebted to Dr. Zimmermann of Toronto, for kindly sending us the facts in time for this number of the Journal.

beginning of the 14th century, and originally French. Having received a liberal education, he at an early age commenced and "did very assiduously prosecute his professional studies at St. Bartholomew's Hospital for a more than ordinary length of time," as testified by Mr. Abernethy, whose dressing pupil he was, and whose esteem he had won—as also that of Sir Astley Cooper, Lawrence, Mayo, Marshall Hall and others of renown in his profession. Proceeding to Paris he studied Anatomy during ten months under Amussat who perceived in him "un zèle et une aptitude rare."

He obtained the license to practice Surgery and was admitted as a member of the Royal College of Surgeons, England, in Dec. 1826; Fellow of the Royal Medical and Chirurgical Society, London, in 1836, and was Surgeon to the Islington Dispensary for some years prior to 1840. Before leaving England he contemplated entering the Army Medical Service, a commission in which he expected, at the instance of Abernethy, from Sir James McGregor, Director General; but having to wait long for it owing to some official regulations regarding the appointment of Army Surgeons, it was abandoned. Desiring to see the New World he came to Canada in 1841, accompanied by his friend Dr. Spear, and obtained in 1842, by Governor General's warrant the license to practise in Canada. He was appointed to the Professorship of Surgery in the University of King's College (now University of Toronto,) in March 1843, which he held for ten years, until the abolition of the Faculty of Medicine of which he was then Dean. He delivered clinical lectures on Surgery at the Toronto General Hospital to which he had been appointed shortly after coming to Canada. In June 1868, he succeeded the Hon. C. Widmer, as consulting Surgeon, and this office, up to the time of his death, he continued to hold, though obliged four years before to abandon active professional duties from loss of sight. He was elected F. R. C. S. Eng. in Aug. 1844, graduated M.D., at the University of Toronto in 1850, and became Member of the Société Universelle d'Ophthalmologie, Paris, in 1861.

To the students of the Toronto School of Medicine he in 1870-71, delivered Lectures on Ophthalmic Surgery, and Clinical Surgery, at the Hospital. In 1872 he was elected Emeritus Professor of Surgery in the University of Trinity College Toronto.

He invented and himself made several surgical instruments, some of which are of great ingenuity and utility. In

1836 he described before the Royal Medico-Chirurgical Society an instrument for passing sutures in deep-seated parts, as in the operation for cleft palate, which was examined and admired by Brunel the great engineer, and was reputed by Tiemann the Surgical Instrument maker in New York to have been the origin of the Singer Sewing Machine. Sir James Paget told the late Dr. Fraser of this city, of the esteem in which Dr. Beaumont was held by all old St. Bartholomew's students, and that he believed that he was the inventor of the principle of the modern Sewing Machine. An account of the invention was published in the "Medical Gazette," for 1836, and the original account may be found in the Transactions of the Medico-Chirurgical Society for the same year, and a description of it may be found in he "Lancet," of March 17th, 1866. With it a continuous chain of stitches can be sewed though in the operations for which it was invented but one at a time was required. He also invented instruments for tying Polypi, a sliding Iris-forceps, a speculum, a probe-pointed Lithotomy knife, and others. He was author of essays on the treatment of Fractures of the Leg and Fore-arm by Plaster of Paris, 1831; on Polypi, 1838; "Case of Large Cartilaginous Tumor of the Lower Jaw," 1850, and he contributed "Clinical Lectures on Traumatic Carotid Aneurism" to the "Lancet," in 1854; "The Several Forms of Lithotomy." Ibid. 1857; A Deeply Penetrating Wound through the Orbit, (five and a half inches deep), Recovery. Ibid. 1862; papers on Exostosis of the Scapula, Aneurism of the Femoral Artery, &c., &c. He has made many donations of valuable preparations, casts and instruments to the Royal College of Surgeons, England, and to other collections. During the Fenian raid of 1866 he had charge at Port Colborne of the hospital for the wounded.

In the winter of 1865 he lost all useful sight of the left eye from acute inflammation, yet was able to perform operations requiring an unerring hand, among them, that for artificial pupil; but at length the left eye became completely useless and the sight of the right affected, and in 1871 greatly impaired, and by the New Year of 1873 lost entirely. Since this time he had lived in retirement with his family about him, and passed quietly away on Oct. 12th, 1875. He was a gentleman of a quiet and retiring disposition, a sound surgeon and an instructive lecturer, and his memory will be held in veneration by all with whom he came in contact.

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of gun-shot wound of the abdomen, with visceral injury—Passage of 18 shot, including one buckshot, per anum—Recovery. By E. D. WORTHINGTON, M. D., Sherbrooke, P.Q.

I am induced to report this case as a remarkable instance of recovery from what was regarded, at first, as a mortal injury; involving, in my opinion, perforation of the stomach; unattended with marked inflammatory symptoms or constitutional disturbance.

Archibald McConechy, aged 21, a school-master, of temperate habits and good constitution, 5 feet 9 inches in height and weighing 135 lbs., ate a hearty breakfast about 9 o'clock on the morning of the 30th October; and, it being a school holiday, he, with four young lads, went out shooting in the woods near Sherbrooke.

The party left the town about 10 o'clock. and after a walk of a mile or so, went into the woods. After rambling about a short time, and shooting an unfortunate squirrel, and some small birds, they arrived at a point exactly 350 yards from the edge of the clearing, where stood a large spruce tree, which presented a most tempting display of gum. But alas, this gum, like many other of this world's treasures, was not easily accessible. One of the boys "went for" the old gum tree and failed. The master then attempted the difficult feat, and this is the way he did it. He placed the butt of his gun on the ground, the hammer being down on the cap, and rested the barrel on a low scrub beech that grew close to the foot of the spruce

tree on his right of the tree as he stood. He then picked up a piece of split wood, about four feet long, intending to place this against the tree, at an angle, climb up so as to get one foot on the end of this split stick, and so reach the coveted gum. In placing the split stick, however, the gun barrel was rather in the way, he took hold of the muzzle of the gun in his left hand—the stick being in his right—and in endeavouring to put the gun aside, a branch of the scrub beech must have caught the hammer, and fired the gun. This is the account given by the lad before alluded to, and I accept it, as he was standing close to Mr. McConechy—touching him in fact—at the moment ; but, as there were five persons present, so are there five different versions as to minute details. I am thus particular as to time and circumstances, so as to arrive at some idea of the state of the stomach about an hour and a half after a hearty meal, and also as to the direction of the wound. According to the above description the muzzle of the gun must have been *within* 12 inches of Mr. McC's body, and the burnt state of his vest, the shape of the holes in his trowsers, flannel drawers, two flannel shirts, and the appearance of the wound corroborate the description, and prove that the whole charge entered the abdominal parieties in one compact mass. The force of the explosion caused Mr. McC. to recoil against the lad beside him. I may as well state here that the gun was an old one, single barrelled, of 6-8ths bore, with a very stiff spring, and that it was loaded with a very uncertain quantity of both powder and shot. The sporting party carried their ammunition in the most unsportsmanlike style—to wit—in two glass bottles ; and measured the charges in the palms of their hands ; totally ignoring all the modern improvements in the art of war ! The phial containing the shot had a mixture of all known varieties from snipe to buckshot ! Mr. McC. was uncertain how many buckshot were in that particular charge ; at first he thought 4 or 5 ; then 2 or 3 ; and at last, as things passed along so harmoniously he came to the conclusion

that he might be mistaken, and that he might have omitted the buckshot altogether. In so thinking however, he is now satisfied that he was in error; as, in seeking since for hidden treasure, he has received indisputable proof that, at least *one buck shot* was in the charge. Exclaiming that he was shot, he opened his waistcoat, the lining of which was on fire, and sat down for a few moments; then started to walk, and immediately began to vomit blood. He thinks that with this blood was mixed a quantity of food. The younger lads were sent for aid, and with the assistance of the older ones he walked the 350 yards, to the edge of the clearing, vomiting blood by the way in large quantity. Here he was met by a farm horse and cart, and driven over very rough ground to the main road and to his lodgings in Sherbrooke. On the way he was seen by a medical man.

I saw the patient about one o'clock, a few minutes after his arrival. His appearance was that of a person suffering from severe shock. Countenance pale, anxious and pinched; surface cold. Pulse 68 and shaky. Constant desire to vomit, bringing up at each effort a spoonful or two of dark blood. Had him undressed and put into bed, with bottles of hot water to his feet, and gave him the only thing at hand—a dose of morphia in a spoonful of brandy and water. While examining the wound he brought up fully 10 ounces of dark blood, containg coagula, but no trace of food.

The margin of the wound ragged and slightly oval, was $1\frac{3}{4}$ by $1\frac{1}{2}$ inches in diameter, and exactly $1\frac{3}{4}$ inches above, and $1\frac{3}{4}$ inches to the left of the centre of the umbilicus. Its long diameter directed upwards. Not a trace of blood appeared externally. The wound presented the appearance of a packing of woollen fibre in blackened and charred tissue, riddled with shot, but so intimately blended as to form one compact mass. I carefully removed all that was removable of the debris; and one very irregularly shaped piece of lead: aud in the act of vomiting a wad of thread,

evidently the sewing of a button escaped from the wound. There was no other abrasion or bruise; affording additional evidence that the whole charge and perhaps more than the charge, had entered at this point.

The patient wore a heavy cloth double breasted vest; a hole was blown through this vest of three inches in diameter, and a button, a composition perforated button—I mean without the old-fashioned metal shank—and which had occupied a position represented by a point not far from the centre of this hole—and which, moreover, Mr. McC. positively states was not wanting before the accident—has most mysteriously disappeared. I think therefore that in the absence of any opposing substance capable of diverting a charge at such a short range, and in the absence of any evidence of "scattering" on the person, or clothing of the unfortunate sufferer, that this button, and a portion of its surroundings, must have followed the line of fire; and if I am correct in my proposition, this button and a quantity of shot still unaccounted for is now stowed away in some of the recesses of Mr. McConechy's peculiarly unsusceptible abdomen.

About 2 p. m., Drs. Johnston, Jones and Tabb saw the patient with me, and we all thought it better not to interfere further with the wound; not only as there were no indications for heroic interference, but as the patient looked as if he could not possibly survive more than a few hours. The wound was covered with a piece of lint, saturated with carbolic acid and linseed oil, and a double of lint enclosing a piece of ice, placed over this. Introduced a catheter and drew off a pint of normal urine. Before leaving gave 20 minims of Battley's solution of opium in brandy and water, and left absolute orders that, under no circumstances, should anything be given by the mouth, but a very small piece of ice or a teaspoonful of brandy and water.

4 p. m.—Skin rather warmer. Pulse 78 and of better volume; stomach continues very irritable, but has vomited

only twice, about a tablespoonful of dark blood each time. No more brandy and water.

8 p. m.—Skin hot. Thirst, dry tongue. Pulse 112, but not hard. Irritability of stomach peculiarly distressing, but no vomiting since 4 o'clock. Peculiarly sensitive state of the skin of the abdomen, particularly near the wound; and a marked involuntary effort on the part of the patient to keep the side quiet in the act of respiration. No cough at any time. Rather sharp twinges of pain at intervals of about five minutes, in and rather above the wound. Prefers to lie on his back with the thighs rather flexed on the abdomen. Hypodermic injection of Battley, 20 minims. Ice freely to the wound and sparingly by the mouth. At 10 p. m. to have 5 minims of Tr. Aconite (Flemings). Midnight, pulse 132. Temperature increased. I regret that owing to an accident to my thermometer I am unable to give the temperature more accurately, Constant nausea, but no vomiting; gave 5 minims of Tr. Aconite, and having a reliable attendant for the night, ordered this dose to be repeated every two, three or four hours, according to the state of the pulse. Passed 8 oz. of clear urine.

31st.—8 a. m. Passed rather a comfortable night; nausea in paroxysms. At 4 a. m. had vomited 4 oz. of grumous blood, passed 6 oz. of bloody urine. Had Aconite at 3 and 6 o'clock. Pulse 125; tongue clean and moist; thirst less.

11 a. m.—Saw him with Dr. Johnston. Pulse 120; skin and particularly palms of the hands moist. Countenance good; is rather cheerful, but has occasional twinges of pain about the wound; nausea less frequent; continue Aconite, one minim every hour. Saw the patient every hour or two during the day, rigorously enforcing the law that nothing should be given, except by myself personally, but the small piece of ice as before, and that as seldom as possible;—not an easy order to carry out in private practice in the country—in the face of sympathetic female

attendants. From the first I was firmly persuaded that there was perforation of the stomach from the shock considered in connection with the bleeding, the persistent nausea, and the situation and apparent direction of the wound, and while Dr. Johnston in the main agreed with me, he rather inclined to the opinion that either the Liver or the Spleen was the source of the Hæmorrhage.

However, the indication was to keep all the viscera in the abdomen as quiet as possible, and the stomach as empty as possible, and whether it was brandy and water, or ice, our patient never had at any one time enough to do more than moisten the mouth, fauces, and *perhaps* the œsophagus. Passed water twice during the day, but quite normal in character

Midnight.—Pulse 118; gave 25 minims of Battley. Aconite to be continued.

Nov. 1st.—8 a. m.—Saw him with Dr. Austin. Passed a very good night; no vomiting since Sunday at 4 a. m. Paroxsyms of nausea less frequent, induced always by the slightest attempt at motion. Pulse 112; soft. Tongue clean and moist, inclined to sleep; wound healthy. A large square of lint wet in tepid water applied over the carbolic acid dressing and covered with oil silk. Saw him very frequently; no change during the day.

In the evening his father, the Rev. Mr. McConechy, of Leeds, and his mother arrived, and in them I had most faithful allies, relieving me of a good deal of anxiety and police duty. Aconite continued with Battley when necessary.

Nov. 2nd.—Patient very comfortable, had a good night; stomach comparatively quiet. Pulse 112. Tongue moist; skin cool. Excessive tenderness of abdomen—as before described—continues. The slightest touch causes him to wince, but he bears firm equable pressure tolerably well. Occasional twists of pain deep seated, near the wound, and pain whenever he tries to pass urine. No steady pain however, no tympanites, and nausea less troublesome.

10 p. m.—With a syringe affixed to a gum elastic catheter threw up the Rectum 20 minims of Battley in two ounces of beef tea.

Nov. 3rd.—Was sent for at 2 a. m. Patient suffering from constant and depressing nausea. Increased pain around the wound. Pulse 110; skin cool. Gave hypodermic of 25 minims of Battley with great relief. To have injection of beef. tea ℥ ii.

8 a. m.—Stomach quiet. Pulse 110. Aconite regularly continued.

10 p. m.—Nausea has entirely disappeared, the stomach being perfectly quiet all day. Patient very cheerful; less tenderness of abdomen. Threw up the Rectum a pint of warm water.

Nov. 4th.—9 a. m.—Patient "jolly." Pulse 102. He thinks he could eat a little. I think he won't. As the result of last night's injection his mother proudly handed me a flattened duck-shot which she had just found in the bed pan, and as it had not yet been emptied I continued the investigation with the father, and was rewarded by the discovery of one smaller shot likewise flattened. The mother's treasure weighed 5 *grains*, mine only *two!* This is the first time the bowels have been moved. The motion was rather copious, and contained no trace of blood.

9 p. m.—Very comfortable all day; pulse 84. Aconite every three hours. Beef tea injections ℥ ii. every four hours. Brandy to be added to this and the Aconite discontinued, if necessary.

Nov. 5th.—Complete line of demarcation round the slough; no discharge from the wound. Pulse 80. Aconite every three hours. Beef tea enemata. Stomach quiet. Bowels moved once; passes water freely. 10 p. m. Battley 25 minims as he thinks the bowels may be moved again.

Nov. 6th.—Early this morning the patient had two very large and offensive discharges from the bowels, which I regret that I did not have an opportunity to examine. Every motion before this had been washed and strained in

the most careful manner until the whole house was suggestive of a Montreal Hotel. It was really aggravating to have what promised such an interesting field for minute research, so recklessly thrown away.

In a slight motion in the afternoon discovered some woollen fibre, the color of the waistcoat, and some shreds of paper.

Nov. 7th.—My patient wonderfully well. Pulse 78. To have a tablespoonful of chicken broth every two hours.

It is to be remembered that since the accident, eight days ago, not one drop of anything, not even barley water, has passed the patient's lips ; nothing but the small piece of ice, and the teaspoonful of brandy and water, the latter after the first 24 hours, not oftener than every 3 or 4 hours, so that it may be said the stomach was kept tolerably empty. Aconite discontinued,

Nov. 11.—Patient improving every day. Chicken broth or beef tea every two hours, one tablespoonful as before. Bowels freely moved ; *passed one shot.*

Nov. 12th.—This evening about 5 o'clock he had a fluid motion, and on examining it himself he found 14 *shot of various sizes and one buckshot ! The* 14 *shot weighed exactly* 30 *grains, and the buckshot* 34 *grains !* They were all irregular in shape, some being quite flattened. He seems quite jubilant over his exploit. Sat in an easy chair for some time, and evidently thinks he is going to recover.

The wound looks well, the slough beginning to get detached and pushing out with it a mass of woollen hairs an inch and a quarter in diameter ; it looks exactly like the hairy head of a "Jack-in-the-box" ready to jump out, but we have determined not to touch "Jack" not knowing precisely his size, or what he is standing upon.

Nov. 15.—Patient doing well, and getting rather reconciled to the Homœopathic system of feeding. The slough being quite detached I lifted it out of the wound very tenderly. It consisted of woollen fibre held together with disorganized tissue. Very much to my relief it revealed no-

thing more terrible than the belly of the Rectus ; ploughed into, it is true, but healthy looking. From a pouch in the belly of the muscle I picked out 7 shot weighing 18 grains. On cleaning out the bottom of the wound it was evident that the muscle was not perforated to any depth in the line of the fire ; but that the charge had been turned aside by the Rectus, its sheath, and probably one of the Lineæ Transversæ. The points where the shot had diverged were fully exposed to view. One in particular, which would readily admit of the passage of a buck shot started from the upper margin of the bottom of the wound, ran for half an inch parallel with the fibres of the Rectus, and then dipped into its belly in the direction of the large curvature of the stomach. Two other tracks of entrance of lesser size entered from the lower margin of the wound, passing to the left. All these shot were irregular in shape, some being completely flattened. I think it may be taken for granted that this flattening of the shot, was not altogether due to the resistance of the clothing, the skin, cellular tissue, and muscular fibre, but may be accounted for, in a great measure, by the impulse of the shot against each other, and against the side of the gun barrel at the moment of the explosion. The shot found in the wound were quite as much flattened as those that passed from the bowels.

Nov. 25.—Wound quite superficial. On the 21st had his clothes on and sat up all day, Walked a little. Had some chicken and blanc mange for a Sunday dinner ; being solid food for the first time. Wanted to go out and may be considered well. Has no pain or uneasiness anywhere, bowels regular, in fact it may be said that "all the functions are in harmony of action."

Has had no aperient medicine of any kind.

In offering this rather remarkable case to your Journal, I have only to add that its fortunate result must be attributed in the first place to an unusually small charge of powder ; next to the idiosyncracy or invulnerability of the patient, and lastly to the combined influences of non-intervention and starvation.

Case of Pedunculated Fibroid Tumour of the Uterus, complicating Pregnancy—Peritonitis—Death. By T. G. RODDICK, M. D., Professor of Clinical Surgery McGill University, Attending Physician to the Montreal General Hospital.

(Read before the Medico-Chirurgical Society.)

Mrs. D., aged 29, healthy looking, married seven years, no children, no miscarriages, consulted me on the 11th July last, giving the following history :—She had not menstruated for four months, thought herself growing somewhat stouter, breasts at times painful, felt no life, but was nevertheless of the opinion that she was pregnant, having had slight morning sickness, and many of the sensations peculiar to that condition. She was not however uneasy on that account although she thought it remarkable, as did I, that she should have been pregnant at this late date of her marriage. She now came to consult me respecting a pain in the right inguinal region, from which she had suffered excruciating agony at times during the past four months or ever since she ceased to menstruate. This pain would seize her without a moment's warning, in bed, in the street, in church, and would compel her if walking or standing to at once sit or lie as opportunity offered. It would pass away in from three to five minutes almost as rapidly as it came, leaving her, however, thoroughly prostrated and her nervous system for some hours quite unstrung. She stated besides that she had recently felt a lump above the right groin which she believed had something to do with the production of the pain. Her bowels had been habitually constipated for some months, and at times she had frequent desire to make water with occasionally a straining after the act. Her appetite was good and she slept as well as ever, being in fact in good health excepting for this pain.

I found on examining the abdomen that there was some uterine enlargement but not so much probably as one

would expect to find after four months. I did not examine stethoscopically. In the right inguinal region, almost exactly I should say over the position of the right ovary, although perhaps a little higher, I came across a firm movable mass of the size of a large hen's egg, being longer in its vertical than its horizontal diameter. As I have said it could be moved within a limited area, but any undue pressure elicited considerable pain of a darting character. The patient strongly objected to a vaginal examination so that the means for diagnosis at my disposal remained limited. I accordingly ordered her a *placebo* in the shape of a belladonna and chloroform liniment with instructions to report herself in a few days.

I need not say that I remained very much in the dark as to the exact nature of things, although my surmises were not a few. As I had not examined the condition of the uterus and its relations, however, and being under the impression from external examination that that organ was not enlarged sufficiently to contain a fœtus in the fourth month, I leaned to the belief that I had to do with a case of extra-uterine pregnancy, either ovarian or tubal. I thought of floating kidney but the nausea said to be induced by pressure on that organ under these circumstances was absent, and besides it was too small to be mistaken for an adult healthy kidney. Inflamed ovary occurred to me, but then again inflammation of that organ is accompanied with constant pain and great tenderness and would not be likely to last for such a time.

July 17—(Six days after the consultation above referred to.) I was sent for to-day to visit Mrs. D., her husband informing me that she had been suffering intense pain all night and vomiting incessantly. I found her in bed, anxious looking, features pinched, pulse 112, and wiry in character, tongue furrred, constant vomiting, some tenderness on pressure over the entire abdomen, but especially pain in the right inguinal region. I found the tumour before described in exactly the same position and not in

itself more painful than before. I now made a vaginal examination and at once satisfied myself that there was a fœtus in utero, but could not by the most careful combined internal and external manipulation feel the tumour through the vaginal wall. This I readily made out, however, that on moving the uterus from side to side I also moved the tumour and *vice versa*, thus proving that they were intimately connected.

As to treatment I ordered locally turpentine epithems to be followed by hot poultices of linseed meal, and internally powders containing half a grain of morphia, a grain of calomel and ten grains of bismuth, to be administered every three hours ; also lime water in milk and weak brandy and water at regular intervals.

July 18—The symptoms gave way to treatment for about twelve hours after my visit the day previous, but were now as violent as ever. I substituted for the powders a mixture containing hydrocyanic acid, solution of morphia, and liquid bismuth, and applied a blister over the painful spot on the right side to be followed also with the linseed meal poultices. As her bowels had not acted for three days I ordered a simple enema.

July 19—Pulse 120 small but regular—temperature 101½. The vomiting is not so constant nor is the pain so severe since the application of the blister. The patient's general appearance however is more unfavorable and the prospect is hourly becoming less promising. Besides I am not at all clear as to the cause of such alarming symtoms. They are not unlike those produced at the time of rupture of the investing membranes in cases of extra-uterine pregnancy, and why I have asked myself although she is pregnant may not one embryo be formed and propagated outside the uterine cavity, while another is undergoing its natural development within? I could think of no benign tumour as likely to produce such mischief especially when floating loosely in the abdominal cavity and not pressing, as far as could be made out, on anything but

the bowels and peritoneum and not firmly on them as its free motion indicated. Could it be malignant disease of the ovary, or a malignant tumour connected with the uterus? There were many chief symptoms of these absent, such as the continuous lancinating pain, the want of eachexia, and the fact that cancer of the ovary at all events is almost always secondary to malignant disease elsewhere.

At my request Dr. Drake was called in consultation. After examining the case most carefully and in our subsequent conversation, he inclined very much to my theory of extra-uterine (probably tubal) pregnancy. The existence of a fœtus in utero was however to him, as it had been to myself, the grave objection to such a supposition, although why we thought could not this anomaly be explained on the same principle as the well recognized phenomenon of superfœtation. I have subsequently learnt in looking up the literature of the subject that this is a recognized fact. Leishman in his excellent system of midwifery says it is admitted on all hands that superfœtation may take place in cases of extra-uterine pregnancy. An example of this he states is reported by Montgomery, in which, while the product of extra-uterine gestation remained encysted within the abdomen the woman bore three children. A similar case (to quote from the same author) has been reported by Dr. Steigertahl; and another still more interesting by Cliet of Lyons, in which a woman died suddenly, and upon dissection, an extra-uterine fœtus of five months was found in the abdomen, while a fœtus of three months occupied the uterus.

Dr. Drake suggested the possibility of the tumour being cystic disease of the ovary, as he was reminded of a case of a somewhat similar character in his own practice in which after death he found this condition of the ovary. The other disease I have mentioned and which occurred to myself we decided on excluding for the reasons I have given.

The only alteration we made in the treatment was the application of a dozen leeches to the bowels, the majority of them to be placed over the right inguinal region.

10 p. m. (18th). The majority of the leeches have taken and the amount of blood extracted has been considerable. She has now a large linseed poultice over the entire abdomen. The pulse is steadily going up, being now 130; temperature 102¾; respirations slightly hurried. For the vomiting, which still continues, I have ordered iced champagne. She has slight retention of urine, but not sufficiently urgent to indicate the use of the catheter; it may probably be due to the morphia of which she is taking half a grain every four hours.

Since the consultation this morning Dr. Drake and I have had a conversation respecting the case, and after looking into it more thoroughly we are both inclined to throw up the diagnosis of tubal fœtation for the reason chiefly that the firm, dense feel of the tumour has remained unaltered since the time I first examined it nine days ago. If the sudden accession of peritonitis and vomiting had been due to the rupture of the investing membranes of a fœtus extra-uterine, one, we argued, would expect to have by this time some alteration in the shape and consistence of the tumour suspected to be of that character. Nothing of the kind had however occurred, the mass being of exactly the same dimensions, shape, and consistence as when first noticed by myself. After studying the case from its various standpoints and weighing the evidence at our disposal most minutely, we come to the conclusion (the credit of having made the suggestion being due Dr. Drake), that in all probability we had to deal with a *pedunculated fibroid tumour of the uterus.* There was one puzzling question, however, which amounted almost to a fatal objection to this theory, viz:—Why should a simple insignificant tumour or growth, floating loose in the abdominal cavity, in the first place during a period of four months create at times pain of the most severe character, and again without a

moment's warning light up a fatal peritonitis with its concomitant distressing symptoms. Notwithstanding this rather formidable stumbling block we decided on adhering to this diagnosis.

July 29—This morning the patient's condition is if anything more alarming than before; vomiting incessant, approaching a stercoraceous character; tongue covered with a deep yellow fur; pulse 140, small and slightly irregular; a subicteroid hue of skin; features pinched; slight delirium. At my request Dr. Howard met Dr. Drake and myself in consultation, After examining the patient and hearing the history he (Dr. H.) concurred with us most emphatically in the diagnosis of pedunculated uterine fibroid. He suggested the employment of morphia hypodermically. Otherwise the treatment is to be continued unchanged.

The patient gradually sank and died on the evening of the 21st, no change of a favorable character having occurred in the symptoms during the last forty-eight hours.

Autopsy—Ten hours after death :— Drs. Cameron and Burland of the Montreal General Hospital, kindly assisted me. Rigor mortis well established. During the death struggle the fœtus had been expelled and lay invested with its membranes partially extruded from the vulva. On opening the abdominal cavity the peritoneum was found universally injected and the intestines congested in places. The uterus was large and flaccid not having contracted to any extent after the expulsion of its contents. Growing from the right side of the fundus and attached to it by a pedicle about three quarters of an inch long, was a *fibroid tumour* of the size of a large hen's egg, thus confirming in every particular the last diagnosis made. The peritoneum, universally injected, was in this locality more congested looking than elsewhere, having indeed in places a dark, almost gangrenous, appearance.

The other organs were healthy.

The specimen, neatly put up by Dr. Cameron, curator of the museum, stands on the table for your inspection.

Remarks.—This case, I take it gentlemen, has many points of extreme interest connected with it, as well in a physiological as a pathological point of view. It is I think interesting physiologically in connection with the great length of time that had elapsed (nearly eight years), before impregnation was accomplished, notwithstanding the uninterrupted marital relations. Could the fibroid growth have originally been embedded in the uterine walls, and by pressure have prevented the congress of germs necessary for ovulation; or did it produce, as so often occurs with fibroid growths, that peculiar catarrhal condition of the uterine mucous membrane so fatal to impregnation? This I look upon as a point of considerable interest, and if explained might assist in the solution of many cases of sterility.

Another matter, however, not less perplexing to me in regard to this case is the occurrence of such fatal symptoms from so slight a cause. We can readily understand a foreign body in the peritoneal cavity (such as the tumour under discussion might be considered) producing during its growth some uneasiness and localized pain, but by what process it could bring about the mischief related in this case I am puzzled to understand. We are taught in fact that the more pedunculated fibroid tumours of the uterus become the less dangerous they are. Dr. Barnes says he has known them to acquire a pedicle so long that the tumour could be grasped in the hand through the abdominal wall, and be moved freely about, only restrained by its mooring to the body of the uterus, which is the counterpart of my case. Further he says when in this condition the subject may go through pregnancy and labour quite unaffected. By no author in fact with which I am acquainted is simple pedunculated fibroid looked upon with much disfavour. Prof. Turner as quoted by Dr. Barnes says, "Should a subperitoneal tumour be at-

tacked by inflammation of its peritoneal investment, and contract adhesions to surrounding parts, it is thus placed in a position favorable to become separated from the uterus. Even if the tumour were to attach itself to a fixed part, as the pubis or other portion of the pelvic wall, and the woman subsequently become pregnant, the growing uterus gradually rising into the abdomen, might exercise such an amount of traction upon the pedicle as to attenuate it even to complete separation." Such, according to these eminent authorities, seem to be the most serious consequences likely to accrue during the process of separation of these subperitoneal growths.

The only explanation I should attempt for the occurrence of peritonitis in my case is this: the tumour may long before have formed rather firm attachments to one or more of the surrounding viscera, and as the body of the uterus enlarged and appeared above the pelvic brim it would drag on the pedicle in an upward direction. The growth, meanwhile, unprepared for separation, would be forcibly torn from its new relations producing lacerations more or less extensive of adjacent structures, which in their turn would be followed by minute bloody extravasations and then peritonitis.

Lastly with regard to treatment, the question might well be asked would the production of premature labour in this case have been a justifiable operation in the face of the existence of peritonitis, and in the event of its successful accomplishment might the cause of the inflammation have been removed, and the parts restored to something approaching a normal condition? This point I prefer submitting to discussion.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Stone in the Bladder.—Severe affection of the bladder—Lithotomy—Death. Under the care of Dr. Ross; reported by Mr. H. A. EBERLE.

J. L., aged 60, was admitted into the Montreal General Hospital Nov. 8th, 1875. Is a rugged, well-built, stout man, rather below the medium height. Has an oblique inguinal hernia on the left side, and had an attack of primary syphilis seven years ago. Otherwise has been perfectly healthy.

Two years ago he first noticed, when the desire to void urine came on, that he had to hesitate before the flow would begin. This was accompanied with a scalding sensation. The necessity for rapidly obeying the impulse now became manifest, as also a more frequent desire to evacuate the bladder. Shortly after this feeble power of control began, there appeared blood in his urine. This bloody discharge did not last long, but it returned occasionally, and during its continuance he suffered much pain. Hæmaturia was noticed by him for the last time about six months ago; since then he has not been able to retain his urine longer than half-an-hour. Most severe pain attended each micturition, chiefly when the last drops were being expelled. He referred the pain most usually to the glans penis, and during the seizure would grasp the penis with a view of alleviating the pain. He complained also of much uneasiness in the bladder itself. No history of retention of urine could be ascertained. There is decided tenderness over the hypogastric region, most marked on the left side, extending thence into the left iliac region.

On admission, a rectal examination was made by Dr. Ross, when it was found that there was very considerable enlargement of the prostate gland, which appeared tender

to the touch. A full-sized, short-curved, steel sound was next introduced into the bladder with little difficulty, considering the size of the prostate gland. In consequence of the severe pain attending the passage of the instrument and of the complete emptiness of the bladder, no evidence of a stone could be made out.

Nov. 10—The desire to evacuate the bladder is much more frequent—every quarter hour,—and the pain attending each micturition is intense, shooting towards the lateral pelvic region. Was ordered the following ℞ : Pot. Acet. ℥iv., Tr. Hyoscy. ℥vi., Aquæ Camph. ad ℥vi.—Tablespoonful every three hours.

Nov, 11—The urine was of a light yellowish color—alkaline, and on standing deposits a moderate sediment of a grayish white color. Under the microscope there was found chiefly mucus and pus cells, and a few phosphatic crystals.

Nov. 12—Another examination was conducted by Dr. Ross, the patient having been anæsthetized for the purpose. A moderate quantity of urine having been previously retained facilitated the exploration. The existence of a calculus was clearly shown by the sound; it was readily felt by the operator, and the peculiar click could be distinctly heard a few feet distant. A lithotrite was introduced, and the stone grasped and measured, its length being 1½ inches. Opium suppositories were ordered to be administered, and hypodermic injections in addition, if required, to allay pain.

Nov. 13—Bowels not been opened since his admission, was ordered Castor Oil ℥iss., followed by a simple enema three hours after. Has frequent desire to void urine, but scarcely an ounce comes away, and in it a quantity of blood. Pain most intense, over the pubic region.

Nov. 14—Bowels moved slightly; urine being retained was drawn off with the catheter, was pale yellowish, tinged with blood and offensive. A second enema administered to which was added Castor Oil ℥ii.

Nov. 15—Lower abdominal zone tender on pressure. Small quantity only of urine was passed unassisted. Was ordered fomentations to abdomen. Appetite good; no fever; pulse strong, 66 per min. It was now decided by Dr. Ross, with the advice of several of his colleagues, to perform Lithotomy. It was the opinion of all who saw him that the case was more suitable for this than for Lithotrity. The chief objections to the latter operation were, the great sensitiveness of the urethra and bladder, as shown after even the most careful explorations; the very considerable enlargement of the prostate gland; the evidently diseased condition of the bladder, and perhaps parts around it, as shown by the tenderness of that region.

Nov. 18—Rested badly the previous night. Bowels opened well; stools dark and offensive. Pulse 68 per min. The *lateral operation* for lithotomy was performed by Dr. Ross, assisted by Drs. Campbell (Dean of the Faculty), Fenwick and Roddick. The usual preliminaries having been gone through, and the patient being under æther, Dr. Ross introduced the grooved staff, and the stone was readily touched. The staff was entrusted to Dr. Campbell. The perineum was steadied with the left hand of the operator, the knife entering a point in the raphe about an inch and a quarter in front of the anus, and an incision was carried obliquely downwards and outwards to midway between the left tuber ischii and the anus. After a few clean cuts, the left fore-finger was introduced and served as a director to divide the fibres of the levator ani muscle. By pushing through the cellular tissue, the groove in the staff could be felt. The knife, guided by the left fore-finger, was introduced into the groove of the staff, and was made to divide the membranous portion of the urethra along with part of the left lobe of the prostate. Thus a free opening was made into the bladder, from which a gush of urine followed the withdrawal of the knife. The left fore-finger was inserted through the wound into the bladder, but the stone could not be felt; this arose from the great depth of the bladder,

and from the stone lying at the fundus. The staff was withdrawn, and the forceps, with their blades closed, were introduced over the left fore-finger into the bladder. Some time elapsed before the stone could be touched, and when felt it would recede beyond the grasp of the blades. At length its position was ascertained, and on opening the blades widely the stone was seized, and was withdrawn with slow, cautious and undulating movements. There being no facets on the stone, it was concluded there was only one ; only slight hæmorrhage attended the operation. The size of the stone nearly corresponded to the measurement made by the lithotrite a few days before the operation. Its length was one inch and five-eighths, width one inch, thickness five-eighths of an inch, and it was somewhat flattened and oval shaped, weighing 3iii. A section showed it to be composed of concentric laminæ of lithic acid and phosphatic concretions surrounding a nucleus of lithic acid. The outside was studded with small beaded concretions of phosphates, giving it a rough exterior. Pulse five minutes after the operation, 120 per min. ; breathing free and easy.

After treatment.—The surface was cleansed, and all clots removed. A silver canula covered with oiled linen was inserted through the wound into the bladder, but it was not retained, as new clots formed and prevented the free exit of urine. Was ordered beef tea, small quantity of brandy and barley water.

6 p.m.—Patient slightly restless ; temp. 98.5 ; respirations 26 ; pulse 90. The urine trickles freely through the wound.

Nov. 19—More restless ; complains of pain in the left pubic region ; skin dry ; heart's action regular ; pulse 102 ; temp. 98.5. The urine passes freely through the cut. He refuses his diet ; is taking morphia in moderate doses.

9 p.m.—The urine ceased its flow through the wound. Patient subsided into a sleep which lasted two hours ; temp. 101. The House Surgeon, Dr. Cline, passed a large gum elastic catheter through the wound, and retained it there.

Nov. 20, 6 a.m.—Pulse 130; temp. 99.6. No urine oozes through the incision. Patient deeply comatose; breathing stertorous. The elastic gum catheter having slipt, was re-introduced into the wound, and a few ounces of offensive urine mixed with blood flowed out. Hot fomentations were applied over the abdomen.

1 p.m.—The face pale and pinched; heart's action exceedingly rapid, weak and irregular. Pulse 122; respirations 35; temp. 101.4. Complete coma; pupils dilated.

2.30 p.m.—Patient died, just forty-eight hours after the operation.

Autopsy, made twenty hours after death.—Cadaveric rigidity well marked. There was considerable hypostatic congestion of the lower lobes of the lungs. There was slight hypertrophy of the left ventricle of the heart. The valves were healthy and competent. The lining membrane of the aorta showed signs of commencing atheromatous degeneration. The liver healthy looking, and its weight 3 lbs. 14 oz. The spleen was about the usual size, but its capsule was greatly thickened and rough. The intestines were extensively glued together, giving evidence of chronic peritonitis; there were no signs to indicate recent peritonitis; old adhesions were found between the intestines and the peritoneum, bladder and liver. The kidneys were of normal size, a section showed deposits of fat about the pyramids; intense congestion of the lining membrane of the pelves of the kidneys, with numerous spots of ecchymosis beneath it, especially in the left kidney; the capsule was not adherent nor thickened, but could be easily torn off. On examining the roof of the pelvis, it was found that the portion to the left appeared prominent. This by dissection proved to be an abscess lying between the peritoneum and the left superior angle of the fundus of the bladder. It was about the size of a hen's egg, with very thickened walls, and evidently of old standing, and contained a few teaspoonfuls of dirty sanious matter.

The bladder was much enlarged, measuring five inches in depth, and its coats enormously thickened. In the substance of the anterior wall of the bladder, under the pubes was found another small abscess about the size of a hazel nut. The mucous membrane was deeply congested, and in some parts greyish in color. The peculiar prominent appearance of the muscular bands resembling the chordæ tendineæ was very well marked. Prostate gland much enlarged, the lobe about half divided through by the incision. Neck of the bladder also divided by the same.

Reviews and Notices of Books.

The Cholera Epidemic of 1873 *in the United States*: The introduction of epidemic Cholera through the agency of the Mercantile Marine; Suggestions of measures of prevention by JOHN M. WOODWORTH, M.D., Supervising Surgeon U. S. Merchant Marine Hospital Service. Washington: Government Printing Office, 1875.

The above work is a very valuable one from containing a large accumulation of facts concerning one of the most formidable diseases that the medical practitioner is called upon to cope with. These facts—arranged and digested so as to form a reliable body of evidence—were derived from a close observation of the numerous cases of this disease that prevailed during the last epidemic which spread through the neighbouring States. The supervising Surgeon, Dr. Woodworth, addressed a circular to leading Physicians in various parts of the Union, soliciting information upon the various points connected with the Clinical History, sanitary circumstances and upon such others as might throw light upon the introduction or extension of

the Epidemic. In reply he obtained communications from 84, which embraced reports of the disease as it appeared in 130 different localities. These have been used as the material from which the present treatise has been produced. Out of them a very carefully prepared history has been written by Dr. E. McClellan, Assistant Surgeon U. S. A. The volume is still more interesting and important from its also containing a "History of the travels of Asiatic Cholera," by the same gentleman and Dr. Peters of New York, and a "Bibliography of Cholera," by Dr. J. S. Billings, Assistant Surgeon, U. S. A. We have much pleasure in adding that the manner in which these gentlemen have severally executed their labors reflects upon them great credit. Their ability and pains-taking are clearly palpable throughout. And the result has been the joint production of a store-house of useful data,—which cannot be elsewhere had collected as they have been here,—and which all will find most serviceable, and easily available who desire to search into the peculiarities or literature of Cholera.

We ought to mention that the value of the publication is materially enhanced by illustrations, chiefly maps of infested localities, representing the course pursued by the Epidemic while spreading through a town or from place to place.

Lest our readers should imagine that the work is one merely of local interest, we may add, to undeceive them, that the second part which comprises "The travels of Asiatic Cholera," is a history of the disease from the earliest periods when it was identified down to recent times. And this history is distributed over 7 chapters, taking up 63 pages. And finally to this is appended a chapter on Cholera in India.

In conclusion, we have to thank our friends of the Supervising Surgeon's Department for their kindness in forwarding us a copy of this official treatise which will be

found, when wanted, a most valuable reference and authority for matters of fact upon the history of Cholera.

The Physician's Visiting List for 1876, being the twenty-fifth year of its publication. Philadelphia, Lindsay & Blakiston.

This useful little book comes to us in all its customary excellence, and we have, after twenty years trial, become so wedded to its use that we would willingly give two or three times the price asked. It is arranged for twenty-five, fifty or one hundred patients, and contains an Almanac. Table of signs, Marshall Hall's ready method in asphyxia, Poisons and their antidotes, a table for calculating the period of utero gestation, besides the blank leaves for the daily visiting list, monthly memoranda, addresses of patients and other names and addresses, Accounts asked for, memoranda of wants, Obstetric engagements, Vaccination engagements, Records of Births Deaths and general memoranda. We cordially recommend it as an indispensable necessity to every physician. It is to be had of Dawson Bros., St James street.

Cyclopedia of the Practice of Medicine, edited by Dr. H. Von Ziemssen, Vol. X.—Diseases of the Female Sexual Organs by Prof. Carl Schroeder of Erlangen, Bavaria, illustrated by 147 engravings on wood; translated from the German by Albert H. Burk., M.D., New York, editor of American edition. 8 Vo. pp. 575. William Wood & Co., 27 Great Jones' Street, New York, 1875.

During the last few years Gynœcology as an art, has made considerable progress, but the several workers in the field of observation are bringing into greater prominence the physiological and pathological bearing of the subject. It is somewhat disheartening to view the con

flicting opinions of different authors on points on which they should agree. Still in comparing their observations, they appear to differ on trivial grounds. Some seem to give their faith on mechanical alterations in shape as giving rise invariably to uterine symptoms. Others regard inflammation of the body or lining membrane as the origin of all uterine disorder. Whilst some insist on uterine irritation, or subinvolution or defective ovulation. In this treatise, however, we have very much of the pathological conditions met with and less of the more practical part so that it in some measure fills a hiatus, which has long been felt to exist. The author gives in few words a sketch of the history of gynœcology, pointing out the introduction by Lavert, of the Uterine Sound, which is still an instrument of great value, one perfectly indispensable to the practical man, although he declares that it has been superseded in a great measure by bi-manual palpation. In speaking of the position of the patient in examination, the author remarks that the "lateral position for the purpose of digital examination should be abandoned;" he prefers the examination with the patient on her back, for which purpose he specially recommends an iron chair. In this we can hardly agree, as under certain conditions we think the lateral method gives the examiner a better chance of ascertaining all he requires to know, and certainly it is quite as convenient a position for examination with the speculum as with the patient on her back. He shows, however, the importance of conjoined examinations, and also speaks of the necessity of examination per anum, which will often reveal conditions which are not to be made out through the vagina. In speaking of examination by the rectum, the author says: "The well-oiled hand is gradually passed through the anus—first two, then four fingers are introduced, and finally also the thumb is passed in with a rotary dilating motion. If the cutaneous margin of the anus threatens to tear, it is better to incise it at once, in one or more places." This appears to be un-

necessarily severe, and we should fear might add to the risk of tearing. Rupture of the bowel has, moreover, occurred in cases where the whole hand has been introduced. The author certainly explains that the lower part of the rectum is loose, and will admit of considerable distention, still we believe that it is only in very obscure cases indeed where such a measure should be attempted. In speaking of the speculum, the author says: "If the object is to expose the whole upper portion of the vagina, for the purpose of clear inspection, or of an operation, we confess our preference for the specula of Simon." Simon's speculum is a modification of that of Sims, and requires for its use the aid of two assistants.

After giving a general view of the various methods of examination, the author proceeds to diseases of the uterus. He next discusses menstruation and its derangements, Diseases of the Fallopian tubes; diseases of the ovaries. He then passes on to diseases of the uterine ligaments and adjacent portion of the peritoneum, then to diseases of the vagina and of the vulva, terminating with a description of rupture of the perineum and the best method of relieving that condition by the operation of perineoraphy. The work is illustrated by 147 most excellent engravings. The finish of the work is of superior excellence, clear and well impressed on good paper, it is a credit to the publishing house of Messrs. Wood & Co., and we heartily recommend it to our readers. It must be born in mind that these volumes are not to be obtained singly, and although this is volume X of the Cyclopedia, yet it is the fourth issued from the press. The entire series will form a most valuable work of reference, one which few real students can afford to be without.

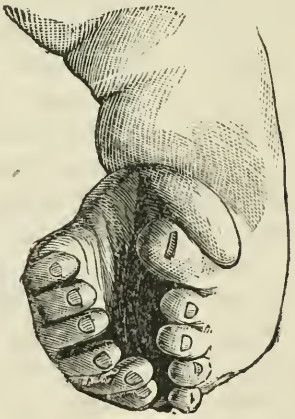
Periscopic Department.

SURGERY.

A Case of Bifurcated Foot With Eleven Toes. By GEORGE J. BULL, M.D., of Worcester.

The following case of congenital malformation of the foot and leg derives additional interest from its extreme rarity. It furnishes an example of the anomaly known in Geoffroy Saint-Hilaire's classification as "bifurcated hand or foot," a deformity not uncommon in the hoofed mammalia, but so rare in man that Saint-Hilaire never found mention of a single well-authenticated case.[2]

A girl was born in Worcester on the 5th of May, 1875, healthy and apparently well formed, except in the left inferior extremity. Her left foot presents the heretofore



unheard-of number of eleven toes, and in its general appearance may be compared to a double or cloven foot. It has only one heel, but in front consists of two parts, which

1 Extract from a paper read before the Worcester District Medical Society, July 14, 1875.

2. Histoire des Anomalies, 1832, i. 694.

we may call the anterior and posterior feet. The anterior presents the great toe with four smaller toes, naturally placed and of normal proportions, but is twisted downwards and inwards in the position of extreme talipes equino-varus. Several pits or depressions over the tarsus mark the position of interspaces between the bones, and show the extent of the inversion, which is further shown by the fact of the inner border of the foot pressing against the heel. Continuous with the outer edge of the anterior foot, and curving beneath it, is the posterior part, looking not unlike a second foot, and furnished with six well-formed, small toes, situated directly below the other five. The plantar surfaces of the two sets of digits face each other, and are separated by a groove, which, beginning between the little toe of the anterior foot and the adjoining one of the supernumerary set, grows broader and deeper as it proceeds inwards, and, winding around the metatarsal bone of the toe, is lost in the furrow between the heel and the inner border of the anterior foot. The two feet are thus quite distinct at the phalanges, and their plantar surfaces are more or less free, that of the anterior foot being visible as far back as the first metatarsal bone, while that of the posterior foot is almost all to be seen, and terminates so naturally on the heel that it is difficult to say to which foot the heel more properly belongs. The eleven toes are perfect in form; none of them are webbed. The great toe and four smaller toes of the anterior foot are normally proportioned; the little toe is the exact image of the first toe of the supernumerary set which adjoins it; the second is the longest of the six, but does not at all resemble a great toe; the third and fourth are equal in length, the fifth and sixth are shorter, as are the outermost toes in the normal foot. The six extra toes remain almost without motion when the normal toes are flexed and extended, but they appear to have distinct metatarsal bones, and perhaps two or more bones of their own in the tarsus. Passing upwards we find the left leg and thigh much thicker than the

right, but in length the two sides are equal. The difference in size may be seen in the following measurements :—

	Right Side.	Left (abnormal).
The circumference of the upper part of the thigh measures	7½ inches.	9¼ inches.
" " " thigh just above the knee	6½ "	7½ "
" " " knee	5½ "	6½ "
" " " leg immediately below knee measures	5¼ "	5½ "

There does not appear to be any unusual development of bone, but there is evident muscular hypertrophy. When the knee is partly flexed a rigid cord or tendon may be felt in the position of the outer ham-string, passing back of the knee, where it stands out prominently beneath the skin, and is continued downwards behind the fibula almost as low as the os calcis. The left labium majus has been twice as large as the right ever since birth. During the mother's pregnancy nothing remarkable happened, nor has anything been discovered to account for this strange malformation. I would, however, briefly call attention to the fact of the occurrence of this double deformity on the left side, the right being normal. Dr. Little [1] has remarked that congenital club-foot, as well as the deformity occurring after birth from disease of the nervous system, attains oftener a higher grade on the left than on the right side. I have not had an opportunity of verifying this statement which refers to club-foot only, but I have observed a remarkable tendency in polydactylism to affect the left side more than on the right. The malformation is altogether confined to the left side in the case above reported, and in an analogous case of bifurcated or double hand described in the forty-sixth volume of the Medico-Chirurgical Transactions, page 29, we find the same peculiarity in a case [2] in which the left foot presented nine toes, but no deformity existed in the other. In the *London Medical Gazette* [1] a supernumerary toe is mentioned as occurring on the left side of the foot of a boy, other members of whose family were deformed in like manner. Mr. Sedgwick re-

1. Holme's System of Surgery, 1862, iii. 567.

ports [2] the case of a girl who had a complete supernumerary finger attached to the outer side of the first phalangeal joint of the left little finger; the child's father, paternal grandmother, and paternal aunt had precisely the same deformity. Another case [3] related by Mr. Sedgwick consisted of double last phalanx on the left thumb of a boy whose maternal grandfather's great-nephew had exactly the same deformity. We find mention [4] also of a boy presenting six toes on the right foot and seven on the left, his hands being similarly malformed. His mother, sister, maternal uncle, and maternal grandfather had the same number of toes and fingers. In Amsterdam a monster, drowned by its parents, had eight toes on the right foot and nine on the left, besides many other malformations. An extended search among the records has discovered many cases of supernumerary digits similar to those already cited, but only a single case [5] where the digits were more numerous on the right side than on the left. I infer, therefore, that polydactylism generally affects the left side in preference to the right.

Mr. Adams has remarked [6] that occasionally we observe an excess or deficiency in the number of toes associated with congenital varus. Tamplin [7] has made a similar remark, and has given an illustration of a case of double talipes varus in which the right foot presented a bud-like projection on the little toe, while the left had six well-developed toes. We observe the association of congenital varus and supernumerary toes in the case of bifurcated or cloven foot, and we now find a further relationship between these deformities, inasmuch as they each attain oftener a higher grade on the left than on the right side. Whatever may be a true explanation of these facts, they show an especial tendency to deformity on the left side of the body, the side known to be the weaker one in the great majority of men.—*Boston Medical and Surgical Journal.*

2. Transactions of the Pathological Society of London, ix. 427.

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1 December 15, 1832, page 361.
2 British and Foreign Medico-Chirurgical Review, April, 1863, page 463
3 Op. cit., page 462.
4 London Medical Gazette, April 12, 1834.
5 Broadhurst on Deformities, 1871, page 57.
6 On Club-foot, page 210.
7 On Deformities, page 69.

CANADA

Medical and Surgical Journal.

MONTREAL, DECEMBER, 1875.

ACTION OF THE LARGE INTESTINE.

It has always been a matter of considerable interest to Physiologists, as well as to practitioners, to determine accurately the part played bythe large bowel in the digestion and absorption of food. The positive knowledge possessed on the subject has not been very great, the general opinion among Physiologists being that no active digestive process went on in this portion of the intestinal tract, but absorption of fluids continued as in the small bowel. Within the last few years several able papers have occurred on the subject in German periodicals, and the experiments made upon man and the lower animals, have all tended to confirm the above opinion. In one of the last numbers of Virchow's Archives (Bd. lxiv. Hft. iv.) Dr. Max Marckwald records a series of observations made upon a case that afforded the greatest facilities afforded on the human subject for obtaining definitive information on this point.

The patient, a man of 49 years of age, had suffered since childhood with a right scrotal hernia. Having become strangulated it was operated upon, but as a portion of the bowel presented a gangrenous appearance it was not returned, and in a few days sloughed away forming an unnatural anus in the region of the right groin. The anatomical situation of the fistula was ascertained to be in the cæcum probably at its junction with the ascending colon as by drawing out the lower portion, the ileo-cæcal valve could be

seen, through which the fæces flowed, and lower down the orifice of the processus vermiformis. The whole extent of a perfectly normal large intestine in a tolerably healthy man—for he had recovered perfectly—was thus completely isolated, and presented a much more favorable condition for experiments than had yet been afforded in the human subject. In previous cases of the kind only small pieces of the bowel, usually the lower part of the colon and rectum have been experimented upon. The general results of the experiments as regards digestion are as follows: neither outside the body, nor in the bowel itself, has the intestinal juice any action upon starch—it possesses no sugar forming ferment. Artificial digestion with the intestinal juice, and raw or cooked fibrine yielded negative results; similarly egg albumen was unaltered. Introduced into the intestines these albuminous bodies appeared to remain unchanged uutil the process of decomposition began, when small quantities of Peptones, Tyrosin and Indol could be detected. That these products, which also occur in digestion, were not due to any action of the intestinal juice was evident from the foul smell, the presence of Bacteria, and, moreover, no increase in the nitrogenous constituents of the urine ever occurred until after the lapse of forty-eight hours, when decomposition set in.

As regards the absorptive powers, it was found that water was taken up slowly, and better with small quantities at a time; at least twelve hours is taken for the absorption of 250 grm. of water. When in small quantities, Peptones were absorbed; in large and concentrated masses the mucous membrane was irritated, and Diarrhœa set up. Contrary to the observations of other experimenters soluble albumen was not absorbed in this case. No experiments were made on the absorption of fat, as the patient became refractory and left the Hospital. The results obtained in these observations settle the question as to any true digestive action in the large bowel. They are more satisfactory than many others, inasmuch as the whole

extent of the large intestine could be utilized, In the main they confirm the experiments of Czerny and Tatshenberger, recorded in one of the numbers of this journal for last year. These observers found in addition that fats if previously emulsified were absorbed. The practical conclusions to be deduced from these investigations is that in cases where recourse must be had to feeding per rectum, the materials employed as food, to be of any service must either first be submitted to a process of artificial digestion outside the body, or else be mixed with digestive fluids and then injected, in which case the artificial digestion would go on in the bowel, and the Peptones or other diffusible substances be absorbed as formed. Dr. Markwald does not believe that a patient who took absolutely nothing by the mouth could be nourished for any length of time per rectum; still many cases occur, especially in surgical practice, as after operation on the pharynx and œsophagus, as well as in some transitory diseases in the upper part of the digestive canal in which the use of nutritive enemata would prove of signal benefit. Mention is made of clysters of albumen with pancreatin as offering certain advantages but unfortunately no directions are given as to thier employment.

BILL.

An Act Concerning the Medical Profession of the Province of Quebec.

We devote much of our space, and have delayed the publication of this number of our journal, in order to give our readers a translation of a bill which was introduced before the Local Legislature of the Province of Quebec, on the 25th November ult., by the Hon. Mr. Chapleau. It does appear strange that a bill of this nature, which is in its bearing an act of revolution, should have got so far as to be introduced before the Legislature of this Province, without a single member of the Profession, except, indeed,

the promoters of the bill in question, having heard even of its existence. We do not believe that the Legislature of this Province will pass the bill, without its being fairly submitted to the members of the Profession, who are a corporate body, nor until an expression of opinion has been received from that body. A change of this nature, affect- the constitutional rights of an incorporated body of men like the Physicians and Surgeons of this Province, ought not to be hurriedly dealt with. If this bill should be passed into law, without being submitted to the various corporations whose rights and privileges will be seriously affected by its provisions, we fear the Legislature would be open to a charge of malfeasance.

We do not know who are the promoters of this bill. We have been told that some half-a-dozen or more medical men in this city, retained an attorney and had the bill drafted, and that it was then given to Mr. Chapleau, who understood that it emanated from a recognized body of practitioners in this Province. We may inform that gentleman that on the evening of Monday, 22nd November, a large and full meeting of the Profession was held in the rooms of the Natural History Society of Montreal. The object of that meeting was to consider the provisions of a bill which had been drafted by a committee of the College of Physicians and Surgeons, and which was to have been discussed at Quebec on the following day, at a special meeting of the College. Judge of the surprise of some of the members who attended the meeting at Quebec, held in the Laval University on the 24th ultimo, when they learned that a bill, which no person had seen or even heard about, was before the House, or about to be introduced..

We will not express any opinion concerning the bill, but simply submit it to the Profession, with an earnest hope that all will read it over carefully. We submit the bill to the Profession, in order that it may be freely and impartial- discussed. Any opinions that may be formed, provided

they are pertinent and within reasonable compass we shall cheerfully insert in our next number. We may observe, however, that this bill appears to lack conciseness and simplicity—but then, it was drawn up by an advocate! The gentlemen of the long robe are so accustomed to quibbling and being bothered in wordy argument by an antagonist, that in framing a law they endeavor to stop all gaps, so as to prevent, if possible, the proverbial coach and six being driven through their act unannounced. And, concerning the promoters of the bill, we may add that they need not have tried to do this thing in a corner; the bill is intended to be a Public Act, and before passing into law must become public property. We merely allude to the fact, as we hold that in matters of this kind, as in all other transactions, a manly, straightforward, honest and open way of dealing will not only command respect, but will be more likely to be attended with success.

BILL

An Act concerning the Medical Profession of the Province of Quebec :

Considering that it is expedient to repeal and amend the acts concerning the Medical Profession of the Province of Quebec; to this end, Her Majesty by and with the counsel and with the consent of the Legislature of Quebec, decrees as follows:

I. The physicians, authorized, at the time of the passing of the present act, to practice Medicine, Surgery and the Obstetric Art, in the Province of Quebec, shall form a civil corporation under the name of "The College of Physicians and Surgeons of the Province of Quebec," and the said corporation shall be divided into two sections as follows, to wit: one section for the old district of Montreal, comprising, also the old district of St. Francis; and one section for the old district of Quebec, comprising also the old district of Three Rivers and Gaspe.

II. The said corporation shall have power to prosecute and to be prosecuted in all the courts of justice of the Province of Quebec, to acquire property moveable and immoveable by purchase, gift, legacy or otherwise to the value of twenty thousand dollars; and each of the said sections shall have power also to prosecute and to be prosecuted separately in courts of justice of the Province of Quebec, under the name of "The College of Physicians and Surgeons of the Province of Quebec" section of Quebec (or Montreal), for all affairs concerning each of the said sections in particular, and to acquire property moveable and immoveable to the value of twenty-four thousand dollars.

2. All actions directed for or against each of the said sections respectively shall only affect the section concerned, and in the case of suits to be instituted against the said corporation or against any of the said sections, the notification delivered at the residence of the Secretary-treasurer of the General Council mentioned below, or at the residence of the secretary of the section interested, shall be a lawful notification.

3. The corporation, whose powers are exercised by the General Council, shall have power to prosecute each of the said sections of the college, to recover all sums due to the said corporation by such section, and if, on the report of the execution of the judgment rendered in such prosecution it has not been satisfied by the payment of the debt in capital and with the cost, the General Council convened for that purpose, shall have power to suspend such section until the payment entire and final of the amount due in capital with interest and costs.

In the case of suspension the members of the section thus suspended shall continue to pay their subscription into the hands of the secretary and treasurer of the General Council who shall administer the affairs of the suspended section, and the General Council shall be invested with all the powers, privileges and attributes pertaining to and conferred by the law on the said section till the causes of the suspension have ceased.

4. The said corporation and each of the said sections shall have a common seal bearing for inscription that of the Corporation: ("College of the Physicians and Surgeons of the Province of Quebec"), and for that of each of the sections; ("College of Physicians and Surgeons of the Province of Quebec,") section of

5. The members of the said Corporation shall not be personally responsible for the debts contracted by the Corporation or either of the said sections.

III. The Corporation shall have power to make the rules and regulations which it shall judge necessary for the interior discipline, and the honor of the members of the College,—to regulate the admission of aspirants to study or practice of medicine,—for the administration of its property,—to regulate a uniform tariff of fees for prescriptions, visits and professional attendance,—for all that relates to the general register and its publication, and to demand a fee from every member who shall ask the insertion of his name on the register after its publication,—to regulate the procedure in the case of suspension of a member of a section, in order that the General Council may have power to carry into effect the said judgment of suspension, and generally all the rules and regulations of a general interest for the Corporation and its members to assure their execution, which rules and regulations it shall have power to change, alter, modify and repeal whenever it shall deem expedient

2. These rules and regulations shall not be contrary to the dispositions of the present Act, and shall be transmitted on their passing to the Secretary of each section, and shall have the force of law, from the time of that transmission.

IV. The powers conferred on the Corporation by the present Act shall be exercised by a General Council composed of the President and the Vice-President, elected by each of the said sections, who shall name and choose from themselves a President, and shall choose also at their discretion from the members of the sections which they represent, a Secretary, who shall at the same time be Treasurer of the said General Council and shall form part of it.

2. The quorum of the said Council shall be three members.

SECTION COUNCILS AND THEIR OFFICERS.

V. The Council of each Section shall be composed of a President, a Vice-President, a Syndic, a Treasurer, a Secretary, and of eight other members for each of the Sections of Montreal and Quebec respectively; and the majority of each of the said respective Councils shall form a quorum, and all questions submitted to the said Councils shall be decided by the majority of the voices of the members present including the President.

VI. The first meeting of the Section Councils shall be presided over by the oldest Physician of the Section, by the date of his reception of such, then present, who shall have the casting vote; and all the other meetings shall be presided over by the President, and in his absence by the Vice-President, or in his absence by any other member chosen by the meeting.

VII. The election of the Section Council shall be made by ballot, the first Wednesday of July every year, unless this day be Sunday or a legal holiday, then the day following :—and the Council shall assume its duties immediately.

2. No such election shall take place if there are not at least thirty members of the Section present at the meeting, and in case, from want of a quorum, or from any other cause, the election cannot be held on the day fixed, it can be held at any other meeting specially called by the secretary, or in his absence by the Syndic, on the order of the president retiring, or on the requisition of ten members of the section;

3. The quorum of all the regular meetings of each section shall be fifteen.

VIII. A meeting of the section shall take place regularly every six months at the room of the Council of the Section on the days fixed by the regulations which the said Council respectively shall make;

2. Special meetings may take place and be called by the Secretary, or, in his absence, by the Syndic, on the order of the President, or on the requisition of ten members of the Section.

IX. The Section-Council shall put into execution, in the extent of their respective Sections, and independently of each other, the rules and regulations made by the General Council, and shall have power to make such rules and regulations as they shall judge necessary;

1. For the acquisition, disposition and management of the property of their respective Sections;

2. To regulate the time and place of meeting of the respective Sections and the manner of proceeding at them.

3. And generally all the regulations concerning the affairs peculiar to these Sections;

4. The said regulations shall not be contrary to the dispositions of the present Act, to any of the rules and regulations made by the General Council, nor to any law in force in the Province of Quebec.

X. The Council of each Section shall have, in and with respect to its Section, the power: Firstly,—For the maintenance of the discipline and the honor of the body, and according to the gravity of the cases, to pronounce by the voice of its President censure and reprimand, to any member guilty of any infraction of discipline, or of any action derogatory to the honor of the College, and to deprive such member of the deliberation voice and even of the right to be present at the meetings of the Section, for any term according to the discretion of the said Council, not exceeding four years, and shall have the power also, according to the gravity of the offence

to punish such member by suspension of his functions for any term at the discretion of the said Council, not exceeding five years, subject to appeal to the General Council only such as prescribed below;

Secondly.—To prevent, conciliate and regulate all difficulties between the members of the Section, concerning professional matters;

Thirdly.—To prevent, hear, conciliate, regulate and decide all complaints on the part of third parties against the members of the College of such section, having for their object professional duties and matters, and which would react in a derogatory manner to the honor or contrary to the discipline of the college.

Fourthly.—To admit on the report of Boards of Examiners, aspirants either to the study or to the practice of medicine, and to decide on their capacity and morality.

Fifthly.—To represent the members of the college, at all times that the interests or duties of the profession necessitate it.

XI. The Secretary of each Section shall report carefully the deliberations and proceedings of the meetings of the council of the section, of which he shall keep a minute in a book for this purpose; and he shall be the guardian of the archives of his section, which shall be deposited in a safe place, determined by the Council of each Section;

2. He shall deliver the records, certificates and other papers which may be required, and such records, signed and certified by the Secretary, and sealed by the seal of the Section, shall be admitted and received as authentic evidence in all the Courts of Justice in the Province of Quebec.

XII. The Treasurer of each Section shall hold the cash of his Section; shall receive and pay all the sums of which the receipt and expenditure are authorized, and shall render account of his administration every year at the meeting held for the election of the Council, and at any time that it shall be required by the Council.

XIII. In case of absence, sickness or death of any of the officers of the Council, they shall be replaced as follows: The President by the Vice-President, and the Vice-President by the oldest member of the Council, according to the date of his admission into the profession, and the other officers shall be temporarily chosen by the Council, and in case of absence, sickness or death of any of the members of the Council, the Council shall have power to replace them in the same manner, by as many other members chosen from the members of the section.

XIV. The President of each section shall have the right to vote, and also shall have the casting vote in all the meetings and deliberations, either of the council or of the members of the section; the President and Vice-President of each section shall have power to call special or extraordinary meetings at any time that he shall judge it proper; he shall scrupulously look after the keeping of the rules and regulations, and the maintenance of order at the meetings; he shall have power to call to order those who are out of order and even to reprimand them.

MEETINGS OF THE GENERAL COUNCIL.

XV. In the months which shall follow the Annual Elections of the Section-Councils, the Presidents and Vice-Presidents of these councils shall meet alternately at Montreal and Quebec, the first meeting being held at Montreal, to choose from themselves the President, and from the members of the different sections, the Secretary-Treasurer of the General Council of the Corporation, and also to make the rules which they are authorized to make by the third Section of the present Act

2. The quorum of the General Council shall be the majority of the said Council, and every question brought up shall be decided by the majority of the members present.

XVI. The duties of the Secretary-Treasurer of the General Council shall be, with respect to the General Council and Corporation, analogous to those of the Secretary and Treasurer of each section with respect to their section; and all records of minutes of proceedings of the said Council, certified by the Secretary-Treasurer of the Council under the seal of the Corporation, shall be received as authentic evidence in all the courts of this Province.

XVII. The President of the General Council shall have the right to vote and shall also have the casting vote in all the deliberative meetings of the General Council,

ACCUSATIONS AGAINST MEMBERS OF THE COLLEGE.

XVIII. In all cases in which a member of the college is accused of any offence and of any contravention of the dispositions of the present act before the Council of the section to which he belongs, the accusation shall be decided as to his being guilty or not guilty by the absolute majority of the members of the Council of the Section,

XIX. The manner of procedure in all accusations brought by the Syndicate is as follows:

2. Each time that the Syndic may receive on the oath of one or several trustworthy persons (an oath which he shall administer), a complaint against one of the members of his section, affecting the honor, dignity, interests and duties of the profession, he shall without delay submit the said complaint to a meeting of the Council, specially convened for this purpose, and if the Council judge that there is matter for investigation, it shall order the trial of such member;

3. The Syndic shall then write out the accusation in the form of schedule No. 2, here annexed, which shall be sent to the Secretary, who shall have a copy made of it which he will certify, and send to the accused, with an order in the name of the President of the Section, commanding the accused to appear in person before the Council on the day, place and hour fixed in the said order;

4. The notification of trial and order to appear, shall be made through the agency of the bailiff of the Superior Court, and the said bailiff shall report on his oath of office such notification;

4½. It shall not be necessary for the accused to appear;

5. All the proceedings relative to the accusations brought before the Section Councils as above mentioned, shall be by writing, and at the time of the examination of the respective parties, these last shall be obliged to furnish a clerk to take detailed notes of the evidence heard, which notes and proceedings and every copy of them shall be received as authentic testimony before the General Council and in all the courts of justice of the Province of Quebec, and all these papers shall be united in one bundle, so as to be sent to the General Council in case of appeal, and to be sent back to the Section Council after the final judgment;

One or several members of the Section Council shall have power to receive evidence in any case, and all objections to the evidence or to part of it, shall be reserved or determined by the said member or members sitting, subject to revision by the said Section Council.

Commissioners of Enquiry chosen from the members of the profession may be named by the Section Council in any part of this Province, within

ten leagues of the limits of the section in which an accusation is pending, to receive evidence for any such accusation, and the said Commissioners shall have for this purpose the same power as is conferred on the President and in the members of the Section Council, including the power to summon witnesses, and in case of their refusal to report it to the President in order that this last may proceed against the witness.

Every member accused shall have power, if he judge proper, to offer his own evidence on the complaint made against him.

6. The General Council shall determine by its regulations the manner in which the proceedings relative to the accusations shall be conducted before the Section Councils.

XX. Each Council shall have the right to require, by subpœnas in the form of the schedule No. 4, annexed, in the name of the President, under the seal of the Section, and signed by the Secretary, the presence of witnesses before it, and it shall have the same powers to compel them to affix and give their depositions as the Civil Courts of the Province of Quebec have; and the subpœnas or other processes required in virtue of the present Act, shall be delivered by the bailiff of the Superior Court; and every President or other person presiding over the Council during the trial, shall have the same power to impose fines on the witnesses for not appearing, and to order imprisonment as for contempt of Court, as any Judge in any Court of Justice in the Province of Quebec.

XXI. The Secretary, or any other member of the Council of the Section shall administer to the witnesses, or to any other person, all the oaths required by the present Act; and any person guilty of false declaration, in any oath required by the present Act, shall be guilty of perjury and punished by the penalties established by the law against perjury.

XXII. Any member accused as above shall have power to defend himself by counsel or solicitor.

XXII½. The council shall establish by the judgment to be rendered in the said trial, which partly shall pay the costs, and shall have power to divide them or accord them to either party and shall settle the amount of them. The party to whom the costs shall be accorded, shall have this judgment registered in the registers of the Superior Court of the district in which the condemned party resides, paying one dollar to the prothonotary for that and on production by the said party of a præcipe, under the signature of the syndicate of the Section whose council has heard the complaint, there shall issue from the said Superior Court in the ordinary manner, a brief of execution, not only for the costs thus accorded, but also for the costs of execution and for the fee paid to the prothonotary as above mentioned. The party in whose favor the costs shall be thus accorded, shall have furthermore the rights to all the costs occasioned after the execution, and shall have power to recover them in the same manner as above prescribed. There shall be in like manner judgments rendered on the appeals brought before the General Council, provided always that the corporation of the College be not held accountable for these costs any more than the Sections.

XXIII.—Any member accused who shall consider himself wronged by the judgment, final or interlocutory, which the section-council shall pronounce on the occasion brought before it, shall not have the power to appeal otherwise than before the General Council, in the manner prescibed below, and no judgment of the Council of one of the sections rendered in virtue of the present act, shall be annulled by any other way than by the appeal mentioned in this Act.

2. In order to obtain this appeal, the wronged member shall deposit,

within thirty days of the pronouncement of the judgment, in the hands of the treasurer of the section-council, fifty dollars, which sum shall be returned to the member soliciting the appeal, if the judgment of the council is annulled or modified with the costs, but otherwise it shall pay the costs which the appeal will occasion according as it shall be determined by the judgment rendered on the said appeal, and no papers shall be sent to the secretary-treasurer of the General Council unless the deposit above enacted shall have been made, and the notice of appeal be duly given to the secretary of the Council of the section which has pronounced such judgment, and no notice shall be received before the deposit has been made; in case the appeal shall not have been lodged within thirty days of the judgment, such judgment shall be put into execution without delay.

3. The notice of appeal and the deposit shall have the effect of obliging the Secretary or any other officer of the Council of the Section which has pronounced such judgment, to send immediately to the Secretary Treasurer of the General Council, the papers of the accusation brought against the appealing member, with the notice of appeal, the certificate of the deposit, as well as the processes and copies of all judgments and orders in the case, and the Secretary-Treasurer of the General Council shall immediately place the case in appeal;

4. After the receipt of the papers, the Secretary-Treasurer of the General Council shall deposit in Her Majesty's Post-Office, free of postage, a notice of such appeal, and of the day fixed for its hearing, which hearing cannot take place before the expiration of fifteen days after the deposit of the said notice in the post; this notice shall be addressed to the member appealing, and to the Presidents and Vice-Presidents of all the Sections of the College, requiring them to be present at the day, place and hour indicated;

5. In the case of absence, sickness, or death of any of the Presidents and Vice-Presidents of the said Sections, two of the oldest members of the Council shall replace them, and the Secretary of the said Section shall deliver to these members the full power to act in the place of the President and Vice-President not acting;

6. The members of the General Council before whom the appeal shall be lodged, or the majority of them, shall have power to confirm, annul, or modify the judgment, either on account of error in the judgment, or in any interlocutory judgment or order rendered in the case, and they shall have power to pronounce the judgment which ought to be and to adjudge the costs, and in the case of judgment pronouncing suspension, to fix the date at which such suspension shall commence; and their judgment as well as the papers of the case shall be immediately returned to the Secretary of the Section from which the papers had been received, and this judgment shall be immediately registered by the Secretary and shall be considered as the judgment of the Council of the Section, just as if it had been rendered there at first;

7. A tariff of fees, payable to the members of the General Council, shall be made by the General Council, which shall determine by whom such fees shall be paid.

XXIV. In the case of suspension of a member of a Section, the Secretary of that Section shall give notice of it to the Secretary of the other Section and such member thus suspended shall not be allowed to practise in the Province of Quebec, during the term of such suspension, mention shall be made of his suspension in the General Register and in the register of the Section to which he belongs.

XXV. Any member of the Council who absents himself from any of the meetings of the said Council, without legitimate cause, shall incur a fine of one dollar for each such absence.

EXAMINATION,—ADMISSION TO STUDY OR TO PRACTICE.

XXVI. Each Section Council shall have power to make every regulation for the examinations for the study and for the practice of the profession of medicine, shall name in eight days after the general elections, a committee of 25 members of the College, of more than five years practice as physicians and not owing any arrears of subscription or other dues, and who shall not be members either of the said General Council, or of the Section Council, to examine the aspirants to the study or to the practice of the profession; this committee shall have power at each session for the examinations, to divide themselves into as many sub-committees as shall be necessary, of which not less than three members form the quorum whose duty shall be;

Firstly.—To enquire into the knowledge, capacity and character of the aspirant to the study of the profession, who shall present himself before such committees and to report to the Council of the Section which, if the report be favorable, shall give to such aspirant a certificate of his admission as aforesaid, under the signature of the President counter-signed by the Secretary, and under the seal of the Section, and in the contrary case, such aspirant shall only be allowed to present himself for a subsequent examination: it shall be the same for the aspirant to practice;

Secondly.—To examine any aspirant to practice, as to his medical knowledge and qualifications, and to enquire into his morality and the regularity of his course of study; and if such aspirant be judged to be capable and qualified, and if it be ascertained that he has conformed in every respect to the dispositions of the present act, the President of the Section, on the report which shall have been made to him in writing, shall accord a diploma of admission to the profession; which diploma shall be in the form of Schedule No. 1 annexed, and shall suffice to give to him, who shall have obtained it, the right to practice as physician and surgeon in the Province of Quebec, on the said aspirant who is thus admitted, taking a faithful oath to fulfill his professional duties; and this oath shall be administered by the Secretary of the Section who shall make mention of it in the diploma;

2. The said diploma shall be registered in the registers of the Section which has delivered it, as well as in the registers of the General Council, and the parties who obtain the diploma shall pay for each such registration the sum of one dollar;

3. Notice by writing shall be given to the Secretary of the Section, at least a month in advance, by the aspirant, that he intends to present himself for admission to study or practice, which notice shall be posted by the Secretary in the place where the meetings of the Section are ordinarily held, with mention of the day on which the examination of such aspirant shall be held;

4. The meetings for examination for the study or practice of the profession shall take place on the day and hour and in the place fixed by the regulations of the respective Sections, provided that such meetings be held once at least, every six months, and if such examination cannot take place or be finished on the day fixed, it shall be in the power of the committees for examination to adjourn from day to day till the examination of all the candidates be finished.

XXVII. No one shall be admitted to an examination for the study or for the practice of the profession, unless he has lodged in the hands of the Treasurer of the Section-Council the sums mentioned below, and no one shall be admitted to the study of the profession unless it appears to the committee which shall be appointed to enquire into the qualification of the candidate, that the candidate possesses sufficient knowledge of the English and French languages, and of the Latin language, and that he has received a liberal education in the sense of the dispositions prescribed below, and such candidate after having received the certificate mentioned in Section twenty-six, shall register his license, passed before notaries, in a register kept for this purpose by the Secretary; for such registration he shall pay one dollar for the certificate of such registration; and the time of the course of such student shall only count from the day of such registration;

2. The liberal education required for admission to the study of medicine shall comprise a complete course of classical study, as follows: Latin elements, syntax, literature, rhetoric and philosophy or any other complete course of classical study taught in colleges, seminaries or incorporated universities;

3. And any candidate to the practice or study of the profession who has been or shall be twice refused on account of immorality or bad character shall not be allowed to present himself as such again.

XXVIII. None shall be admitted as physician and surgeon, without having attained the age of twenty-one years, having been regularly to study according to the disposition of the preceding Section having studied regularly and without interruption as apprentice or student with a physician for four consecutive and entire years, and having followed a regular and complete course of lectures in a university, college or incorporated school of medicine, in which such course of lectures on medicine, and surgery is established (such course subject to the dispositions below), and taken a degreein medicine, in such incorporated university or college, and this course of lectures in medicine and surgery shall have to be followed at the same time as the student will serve his time of study under indenture with a practising physician, and these facts shall be established by the indenture of apprenticeship, the certificate of his patron and the diploma or certificate conferring the degree.

2. The General Council shall have power from time to time, to demand from all the universities, or all incorporated colleges or schools of medicine in which they shall have pretended to establish such courses of medicine and surgery, a report indicating fully the detailed programme of this course of lectures in medicine and surgery, and it shall have the power, through the *Official Gazette* of the Province of Quebec, to declare that it approves it if it is judged sufficient, or it shall have the power to report to the Lieutenant-Governor, giving previous intimation to the party interested, and to demand and obtain an order in Council prescribing such other programme as the Lieutenant-Governor in Council shall judge proper, which order shall be published in the said *Official Gazette*, and no diploma or degree in medicine shall be valid in virtue of the present Section unless it be accorded conformably to the requirements of this Section.

XXIX. No candidate shall be admitted to practice in a Section in which he shall not have studied; and if he has studied partly in one Section and partly in another, he can only be admitted in the Section in which he has studied for the last six months of his course and he shall have to produce a certificate of study from the Council of the Section in which he has made part of his course which will be given to him by the President under the seal of the Section, and he shall pay a fee of one dollar for such certificate;

2. If such candidate has been refused before a Section, or if his examination is continued, he cannot present himself immediately for examination nor be admitted to practice before any other Section than this before which he has already been examined, unless he has studied for six months since his last examination in such Section.

XXX. Nothing in the present act shall be prejudicial to the right of such student or of such person to be admitted to the practice of the profession or to claim any exemption or privilege acquired under the authority of any act in force before the present act, and any person desiring to present himself for the practice of the profession shall have power to do so at the most distant term from his course of study but he shall only obtain his diploma after his course shall have been finished entirely.

XXXI. The Secretary of each Section shall keep a register in which the names of all the students who have registered their admission, with the date of their registration, shall be written in order of date, and in which he shall write also, but separately, the names of all the members of the profession of the Section, with the date of their admission, who do not owe any arrears of subscription, and who have paid their annual subscription which has expired the first Wednesday of the July preceding;

2. And no one shall have power to practise in the Province of Quebec if he has been or if he is or if he is going to be convicted of felony or of any other infamous crime, and by such conviction he shall lose the privileges which his diploma accords to him, and any money obtained by him to account for such conviction as physician and surgeon shall be considered to have been obtained by this person under false pretences, which shall be subject to the disposition of the law in such a case;

2. The Clerk of the Crown for the Criminal Court which shall have pronounced such conviction, shall inform the Secretary of the Section in which such physician was practicing, of felony or any other infamous crime, or if any of the offences mentioned in the twenty-sixth section of the ninety-second chapter of the Revised Statutes of Canada, in order that the name of such physician may be struck out of such register; and the Secretary of such section shall send to the Secretary-Treasurer of the General Council the name of the physician thus deprived of his privileges, in order that it may be struck out from the general register.

XXXII. The following fees shall be paid, besides the fees above mentioned, to the Treasurer of each section, and that before the examination of any candidate shall take place for the study or for the practice of the profession, to wit: For each certificate of admission to the study of the profession, twenty dollars; for each diploma, fifty dollars; and all sums received on the account of the Section shall be lodged in the treasury of the Section;

2. The following fees shall be retained by the Treasurer and lodged in the treasury of the Section in case of refusal of admission either to the study or to the practice of the profession, to wit: For admission to study, five dollars; for admission to practice, ten dollars; the Treasurer of the Section shall return the balance to the rejected candidate.

XXXII½. Any person who has been duly named member of, or who has been admitted to the College of the Corporation, University or School of Medicine, duly incorporated and having power to accord diplomas in any country, in which the same privileges shall have been accorded to the physicians and surgeons of this Province, and who produces sufficient proof of his nomination or admission, to wit, a certificate of proper life and character, to the satisfaction of the Council of the Section before which such person presents himself, and who submits to an examination on his

medical knowledge to the satisfaction of the Council, shall receive a diploma giving him the right to practice as physician and surgeon in this Province.

ANNUAL SUBSCRIPTION FROM THE MEMBERS.

XXXIII. Until the Section Council shall have made other rules, each member shall pay in each Section, annually, on the 1st of May, into the hands of the Treasurer, the sum of six dollars, which shall be lodged in the treasury of the Section;

2. And the members of the College paying such annual contribution shall have the use of the library and of the books of their Section, subject only to the rules which the Council of the Section shall have power to establish for the management of the said library: and the said Council is for the present authorized to estsblish rules and to change them from time to time, as it shall judge proper to increase the said subscription, for other objects;

3. Any member who neglects to pay the annual subscription or any part of it, or any other due legally imposed by the Council of the Section, shall lose the right to vote at all and eaeh of the meetings of his Section, so long as he shall remain thus indebted;

4. Any member desiring not to practice the profession of medicine shall be able to relieve himself from the payment of such subscription during the whole time that he shall cease thus to practice, by paying previously all arrears due frem him and by giving information in writing of his intention of not practising, to the Secretary of the Section to which he belongs, who will inform the Secretary of the General Council, and the fact that such member has ceased to practice shall be ascertained from the particular register of the Section, and such member shall no longer have power to reenter upon the practice of his profession, and any fee received after such notification shall be considered to have been received under false pretences, and the physician shall have to be subject to the dispositions of the law regulating false pretences, unless he has previously notified the Secretary of the Section of his intention to practice anew, and such notification shall also be registered in the said registers, and after such notification, such member shall continue to pay the annual subscription.

XXXIV. The Section Councils shall have power to name, every year, a Committee of not less than five members, who shall be chosen from the members of the respective Sections, whose duty shall be to superintend the library of said Section, to take it under ther care, and to make regulations concerning its management.

TREASURY OF THE SECTIONS.

XXXV. The treasurers of the different Sections shall make every year, on the first of May and each time that it shall be required by their Sections, an exact report of the receipts and expenditures of their Section.

XXXVI. The Council of each Section shall examine each time that it shall judge proper the accounts of its Treasurer, and no expenditure shall be made without the authority of the Council, signed by the President unless the Section in meeting has ordered it.

XXXVII. All fines and subscriptions imposed in virtue of the present act, and conformably to its dispositions, shall be recoverable with costs, before any court of justice having civil jurisdiction in the district in which the defendant resides, on a simple certificate from the President counter-

signed by the Secretary of the Section, and it shall suffice, in the declaration for recovering such subscriptions or fines, to state the sum demanded to mention in it in a summary manner the period during which such fines have been incurred or such subscriptions have become due, without stating the case or the particulars.

XXXVIII. No omission on the part of the Section Councils, to meet,—and no default on the part of any Section to proceed, for the election of its Council and officers should prevent the other Section from proceeding in virtue of the present act, as far as the Sections are concerned, shall not cause the dissolution of the corporation nor of any such Council.

XXXIX. The twenty-sixth Chapter of the Statutes passed in the tenth and eleventh years of the reign of Her Majesty, entitled "Act to incorporate the members of the Medical Profession in Lower Canada and to regulate the Study and practice of Medicine and Surgery in it," and the fifty-second Chapter of the Statutes passed in the twelfth year of the reign of Her Majesty, Entitled: "Act to amend the act to incorporate the members of the medical Profession in Lower Canada, and to regulate the Study and practice of Medicine and Surgery in it," are for the present repealed, but all processes, matters and things, adopted and accomplished in virtue of the said Act or of any of these Acts, shall remain and continue to exist as if such repeal had not taken place, and as long as the thing shall be necessary, shall be continued, followed and accomplished, in virtue of the present Act.

XL. The disposition of the present Act shall only apply to the students actually under apprenticeship as far as concerns the mode of examination of candidates to practice, such as provided by this Act.

XLI. The powers, privileges, and prerogatives conferred on the Government of the College of Physicians and Surgeons of Lower Canada, in existence at the time of the passing of the present act shall be in as far as they are not contrary to the dispositions of the present act, transmitted, conferred on and exercised by the General Council, and all the Archives, papers, documents, books, or other movable effects belonging to the said College shall become the property of the said General Council and it shall be the duty of the President and of the Secretary of the said College, to put the President and Secretary in possession of the said archives, papers, documents, or other movable effects.

XLII. The powers, privileges and prerogatives of the physicians and surgeons, belonging to the college of physicians and surgeons of Lower Canada, in virtue of the act now repealed in as far as these powers, privileges and prerogatives are not contrary to the dispositions of the present act shall remain attached to the title of physician and surgeon conferred before the passing of the present act.

REGISTER OF THE MEMBERS OF THE COLLEGE.

XLIII. The names of the members of the said Corporation shall be inscribed in a general register kept by the General Council, and the Secretary of each Section shall also keep a similar register, containing the names in full with the residences of each such members of his Section, as provided above;

2. The General Register shall be published every year, in the month which shall follow the elections of the General Council and shall contain only the names of the members of the said Corporation who have paid the annual subscription up to the first of July proceeding, and all arrears which should be due on the certified report which the treasurer of each Section shall make to the Secretary-Treasurer of the General Council in

the fifteen days which follow the General Elections; but this register may be amended, after the regulations of the General Council conformable to the powers conferred on it by the present Act;

3. None shall be allowed to practice as physician and surgeon in the Province of Quebec, if his name is not inserted in such general register thus published;

4. Any writing of a medical prescription, and any sale of poisons or other injurious liquids or substances made on the order of any person whose name is not inscribed in such general register, thus published, shall be considered to have been made by a person not qualified to practice as physician and surgeon;

5. Any person whose name shall not be inscribed in the general register and shall have no right to be there inscribed, shall not have power to indemnify himself for attendance, visits, treatment or prescriptions given by him, and any money received by him for such shall be considered to have been obtained under false pretences and shall render such person subject to the disposition of the common law about false pretences;

6. Any physician or Surgeon, who shall have the right to practice as such, but whose name shall have been omitted in the General Register, for some cause or other, shall apply directly to the Secretary-Treasurer, and on the certificate of the treasurer of the Section to which such physician or surgeon belongs, he shall obtain from the General Council, under the signature of the Secretary-Treasurer of it, a certificate which shall serve in place of the inscription of his name in the general register. and shall have the same advantages, privileges and prerogatives as such inscriptions;

7. Until the General Council has made rules on this subject, any person shall have the right to a certified copy of the General Register printed, by paying into the hands of the General Council a fee of fifty cents; and such copy printed and certified of the said register shall be *prima facie* evidence before any Court of justice of the Province of Quebec.

CAMPBELL'S NORWAY COD LIVER OIL.

We, with much pleasure, recommend this excellent preparation. This oil is superior in appearance to the finest samples of the ordinary Cod Liver Oil. It is stated that Cod fish on the Norway coast are in a much healthier condition than those on the American shores; the makers of the oil are more skilful and careful, and they select only sound and fresh livers. The result is apparent in the pale yet brilliant appearance of the Norway Oil. It has no disagreeable odor, its taste is bland and pleasant, and is readily taken by children and invalids. It can be easily known by the peculiarity of not freezing at temperatures which solidify ordinary Cod Liver Oil.

We have been requested to give publicity to the following announcement, and we trust that Canada will not be behind other countries in sending representative men to attend this very important meeting:

AMERICAN CENTENNIAL CELEBRATION.

INTERNATIONAL MEDICAL CONGRESS.

The Medical Societies of Philadelphia, animated by a just spirit of patriotism, and an earnest desire to unite with their fellow-citizens in celebrating the Centennial Birthday of American Independence, have taken the initiatory steps for the formation of an International Medical Congress, by the appointment of delegates from their respective bodies, who were empowered to organize and perfect a scheme for the above purpose. In accordance with the authority thus given the delegation has organized The Centennial Medical Commission, with the following officers: President, Samuel D. Gross, M. D., LL. D., D. C. L. Oxon; Vice-Presidents, W. S. W. Ruschenberger, M. D., U. S. N.; Alfred Stille, M. D.; Recording Secretary, William B. Atkinson, M. D.; American Corresponding Secretaries, Daniel G. Brinton, M. D., William Goodell, M. D.; Foreign Corresponding Secretaries, Richard J. Dunglison, M. D.; R. M. Bertolet, M. D.; Treasurer, Casper Wister, M. D. Arrangements have been made for the holding of the Congress in the City of Philadelphia to begin on the 4th and to terminate on the 9th of September, 1876. The Commission propose the following general plan for the organization and business of the Congress:

I. The Congress shall consist of delegates, American and foreign, the former representing the American Medical Association and the State and Territorial Medical Societies of the Union: the latter the principal medical societies of other countries.

II. The officers shall consist of a President, ten Vice-Presidents four Secretaries, a Treasurer and a Committee of Publication, to be elected by the Congress at its first session, on the report of a Committee of Nomination.

III. The morning session of Congress shall be devoted to general business and reading of discourses; the afternoons to the meetings of the Sections, of which there are nine, viz.:

1. Medicine, including pathology, pathological anatomy and therapeutics.
2. Biology, including anatomy, histology, physiology and microscopy.
3. Surgery.
4. Dermatology and syphilology.
5. Obstetrics and diseases of women and children.

6. Chemistry, toxicology and Medical Jurisprudence.
7. Sanitary science, including hygiene and medical statistics.
8. Ophthalmology and Otology.
9. Mental diseases.

IV. The language of the Congress shall be the English, but not to the exclusion of any other language in which members may be able to express themselves more fluently.

Gentlemen intending to make communications upon scientific subjects will please notify the Commission at the earliest possible date, in order that places may be assigned them on the programme.

In order to impart to the Congress a thoroughly international character invitations to send delegates will be extended to all the prominent medical societies in Europe, Mexico, the British Dominions, Central and South America, the Sandwich Islands, the East and West Indies, Australia, China and Japan. Invitations will also be rendered to medical gentlemen of high scientific position; and distinguished visitors may be admitted to membership by a vote of the Congress.

Among the advantages arising from such a convocation as this, not the least important will be the opportunity afforded its members for the interchange of friendly greetings, the formation of new acquaintances and the renewal and cementing of old friendships.

The Centennial Medical Commission tender in advance to their brethren in all parts of the world a cordial welcome, and a generous hospitality during their sojourn in the "Centennial City."

The Congress will be formally opened at noon, on Monday, the fourth day of September, 1874.

The registration book will be open daily from Thursday, Aug. 31, *from* 10 *to* 3 *P. M., in the Hall of the College of Physicians, N.E. cor. of* 13*th and Locust Streets. Credentials must in every case be presented.*

Gentlemen attending the Congress can have their correspondence directed to the care of the College of Physicians of Philadelphia, N. E. corner of Locust and Thirteenth Sts., Philadelphia, Pennsylvania

There is every reason to believe that there will be ample hotel accommodation for all strangers visiting Philadelphia in 1876. Further information may be obtained by addressing the Corresponding Secretaries.

All communications must be addressed to the appropriate Secretaries.

WILLIAM B. ATKINSON, 1400 Pine Street, Philadelphia, *Recording Secretary.*

DANIEL G. BRINTON, 2027 Arch Street.
WM. GOODELL, 20th & Hamilton Sts. } *American Corresponding Secretaries.*

RICH. J. DUNGLISON, 814 N. 16th St.
R. M. BERTOLET, 113 S. Broad Street. } *Foreign Corresponding Secretaries.*

PHILADELPHIA, October, 1875.

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Lithotomy, Followed by Renal Abscess and Death. Autopsy. By J. T. Finnie, M.D., L.R.C.S., Edin.

(Read before the Medico Chirurgical Society of Montreal.)

The following case of stone in the bladder first came under my care in the summer of 1874. The subject, the son of Mr. W.,——was three and a half years old. Had been a weakly child from infancy, not having walked until two and a half years old. Was subject to frequent attacks of diarrhœa, stools invariably of a light colour and highly offensive. Coupled with this there existed a peculiar fragile condition of the bones, indeed so much so, that an ordinary fall or twist would result in fracture or separation of the epiphyses. During the space of twelve months I was called on five different occasions to set fractures of either the right or left arm. The child's appetite has, as a rule, been good, at times voracious.

The first symptoms of stone manifested themselves by pain in the region of the bladder, frequent micturition, and pain at the glans penis, made apparent from his frequently grasping and stretching it to relieve the pain. From these symptoms and the general condition of the child I at once suspected *stone*. On making known my suspicions to Dr. Fenwick he kindly consented to meet me, gave the patient chloroform and explored the bladder. We however failed to detect any stone.

In the meantime I prescribed the mineral acids and change of air, with apparently some benefit, as the symptoms

subsided very much. Several months after, however, the patient relapsed iuto a condition worse than before. Great pain in making water, especially at the close of the act of micturition, urine muddy with sediment of thick muddy mucus. I again passed a No. 3 sound, but could discover nothing. Twice at long intervals the operation was repeated, but always with the same result.

As the symptoms continued, and became urgent, I was positive that nothing but the presence of a *stone* could cause so much disturbance. I got Dr. Ross to accompany me, Sept. 25th, and having anæsthetised the patient, we made a thorough examination of the bladder, and at last detected a *calculus*, being made aware of its presence only by contact and friction. The distinct metallic ring that usually follows the stroke of the sound was absent, from which we inferred that the stone was a soft one. Being certain that a stone existed, I decided to operate as soon as possible.

On Thursday, September 30th, I called to my assistance Drs. Ross, Roddick, Rodger and Alloway, Dr. Fenwick being unavoidably absent.

Chloroform having been administered, I proceeded to operate. First passing No. 5 staff, and giving it in charge of Dr. Ross, I commenced my incision at the raphé, midway between the scrotum and anus, plunging the knife at once down as far as the staff, and in withdrawing it, cutting obliquely downwards and outwards as far as a point midway between the *tuber ischii* and *anus*.

Inserting my left forefinger as far as the staff, it served as a guide in introducing the knife, to make the second incision, through the prostate and neck of the bladder. Here I experienced the first and only difficulty in the whole operation. Having passed my finger into the bladder the staff being removed, I could with an effort just touch the stone,—and having introduced the forceps—in my efforts to grasp the stone, I invariably included a fold of the bladder. After repeated attempts I withdrew the forceps with the object of using the scoop instead. In the spoons of

the forceps I found a small calculus, together with a large quantity of soft phosphatic material, which I found to be part of the thick deposit of phosphate, covering the fundus of the bladder. This deposit was removed with the scoop, as well as two more stones, which were very soft, purely *phosphatic*, the whole weighing two drachms. Being satisfied that all had been removed from the bladder I washed it well out with lukewarm water, and the patient was removed to bed, while yet under the influence of chloroform. Half an hour after the operation the pulse was 135; temperature 100°. Woke up for a few moments, got a drink of milk and water, and fell asleep again.

9. P.M.—Pulse 130; temperature 100°. Everything going on satisfactorily. Has taken some beef tea. Urine trickling through the wound, bringing with it some *phosphatic debris*. Wound looks well. Has no pain.

Oct. 1. Patient passed a quiet night. Has no pain. Slept well; pulse 125°; temperature 100°. Bowels somewhat relaxed. Prescribed half a drachm of the Fld. Extract Rubus Villosus, every three or four hours.

Oct. 2. Continues to do well. Wound healthy-looking. Slight discharge of pus. Nourishing well. Pulse 120.—Temperature 99°.

Oct. 3. Diarrhœa troublesome; again changed the medicine to P. Cretæ co. c. Opio. gr. v., every four hours. Free discharge of pus from wound. Sleeps well.

Oct. 4. Bowels not so relaxed. Patient quite playful. Pulse 124°; temperature 99.

Oct. 8. Patient doing well; urine still passing by the wound; free discharge of pus. No signs of its closing; Injecting the wound with solution of Carbolic Acid, 1–30.

Oct. 12. Patient greatly improved; eats well and sleeps well. Micturition performed partially by natural passage. The wound, however, seems as large as ever, and discharges freely.

Oct. 18. Passes water entirely by natural passage, but externally the wound is not healing. No vitality about it;

injected a strong solution of *argent nit.* into the wound to-day, 20 grains to ounce.

Oct. 25. Patient remains much as he was ; no improvement in the appearance of the wound. Still injecting the solution of nitrate of silver ; eats well and sleeps well. Bowels every other day became relaxed ; stools exceedingly offensive.

Nov. 1st. Patient much changed to-day. Pulse 140 : temperature 102°. Hectic flush on the face ; lost his appetite ; bowels very loose. Wound discharging pus profusely.

Nov. 2. Little better to-day. Diarrhœa arrested. Pulse 142 ; temperature 101½. Sordes on teeth ; tongue coated with thick white fur.

Nov. 3. Patient seems improved ; is eating a little to-day ; but he is greatly changed, the emaciated body and pinched appearance of the countenance all bespeak some serious trouble. In detailing to Dr. Ross the change that had come over my patient, he suggested that there might be some kidney complication ; but it was impossible to get any of his urine, as he invariably passed it in bed.

Nov. 8. Patient much emaciated ; bed-sores over sacrum ; diarrhœa ; eats nothing ; takes a little port wine and milk ; evidently sinking fast.

Nov. 14. Patient died to-day.

Autopsy.

Thirty-six hours after death, together with Dr. Rodger, I made a *post mortem* examination of the body. Extreme emaciation. On opening the abdominal walls nothing unusual presented itself. Bowels natural ; no sign of any inflammatory action. Spleen, normal.

Right Kidney very much enlarged ; general appearance pale and preternaturally soft to the touch. Dividing it, we found the cortical substance twice its normal thickness and pale ; obliteration of the pyramids. Pelvis much enlarged, and a large calculus imbedded at its lower part, the remaining portion being filled with thick yellowish pus and

calcareous particles. The whole forming a very interesting pathological specimen.

I next proceeded to examine the left kidney, which was found to be in a condition the reverse of the right, very much atrophied, and exceedingly dark in colour, resembling that of the spleen more than the kidney. On opening it we found the cortical substance almost obliterated. Pelvis apparently enlarged, and some calcareous matter scattered over its surface.

Ureters evidently natural ; no thickening.

Bladder. Having removed the bladder entire, we were enabled to examine it thoroughly. The whole organ was very much thickened, which might have been expected from the chronic inflamed condition in which it had been for so long. The incision that I had made in the neck of the bladder at the operation was open, union never having taken place, or, if it had, absorption of the cicatrix had occurred before death.

Nothing further was examined, being satisfied that the renal calculus and abscess was the cause of death.

In conclusion, Mr. Chairman, I must confess that I have been not a little puzzled with the course this case took. As the autopsy has shown to us, a large renal calculus was found in the right kidney, with an accompanying abscess. How the patient did not show more marked symptoms of that prior to the operation seems to me very strange. That the calculus existed in the kidney for a considerable time before the operation there can be no doubt, as the pathological changes found there must have taken months to have become so marked. Why should my patient improve, as undoubtedly he did, from the day of the operation up to a fortnight prior to his death ? These and other questions I should like to have answered, and I put them forward with the hope that they may provoke discussion on the subject. I place before you both the right and left kidney, as well as three *stones* removed from the bladder.

A Case of Melano-sarcoma of the Choroid. By Dr. A. Proudfoot.

(Read before the Medico Chirurgical Society.)

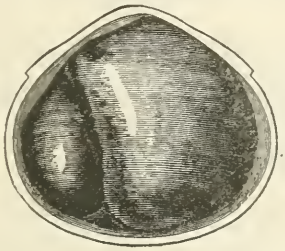
Gentlemen,—I venture to read this paper before you, this evening, not from any peculiarity in the case itself; or from its great rarity ; but from the extreme importance of an early diagnosis in such cases ; as they generally endanger, if they do not destroy the life of the patient.

Therefore, the more familiar we are with them, the more likely we shall be to discover them in their earliest stage and give the patient a chance for life, by at once removing the eye.

On December 4th I was consulted by Mrs. C. æt 45, the wife of a well-to-do farmer from the United States, on account of almost entire loss of vision in the right eye. Mrs. C. was the mother of three children ; had usually enjoyed pretty good health, though subject to attacks of sick-headache. About two years ago she first noticed a slight weakness of the right eye ; but it was unaccompanied by pain, and therefore gave her but little uneasiness. For the last year she had been losing the sight of the eye ; in August she first applied to her family physician for relief; he diagnosed incipient cataract and put her upon a course of tonics. The sight, however, gradually decreased until she came into this city to consult me. In September (three months ago) she first experienced great pain in the eye ; it had lately become so severe that it kept her awake at night, making her at times, to use her own expression, "almost crazy." It was of a shooting character and extended from the eye across the right side of the head and down into the neck. The paroxysms of pain were intermittent, coming on usually every other night ; the patient being comparatively comfortable and free from pain during the interval. On examination I found the tension normal in both eyes, the iris in the left eye was of a light blue color and the pupil of natural size, while the pupil of the right eye was of

unusually small size and extremely sluggish, responding almost imperceptibly to the stimulus of light ; the iris was throughout of a dusky gray color, excepting at the lower part, from near the margin of the pupil, where it was of a blackish-brown color and pushed forward so as to be in contact with the cornea at its lower and outer edge.

Upon dilating the pupil with a strong solution of atropine I had no difficulty in diagnosing a melano-sarcoma of the choroid, as the tumour could be seen occupying the lower third of the eye ; although there was an incipient cataract of the lens. The ophthalmoscopic appearance of the eye was very beautiful, as the retina could be seen detached from the choroid and stretched tightly over the tumour



throughout its extent, its vessels being seen with great distinctness. The fundus and the disc were apparently perfectly healthy. I advised immediate enucleation of the eye, and the operation being consented to, the patient returned to the hotel, where I placed her under æther, and assisted by my friend, Dr. Hamilton, and her husband, I removed the eye in the usual manner ; great care being taken to divide the nerve as far back as possible. Upon making a horizontal section through the middle of the eye, just below the optic nerve, I found the tumour to occupy its lower third, and to consist of two lobes, the larger lobe being about four-fifths of the entire size of the tumour, commencing about four lines below the disc and extending forward to the iris, which it pushed into close contact with the cornea, thus obliterating the lower part of the anterior

chamber of the eye. The smaller lobe was situated somewhat posteriorly and made up the remaining fifth of the tumour, being partially separated from it by a shallow groove. The upper two-thirds of the eye were perfectly healthy, the retina and optic nerve not being implicated.

Prognosis.—Knapp, in his book on "Intra Ocular Tumours," describes eight cases of melano-sarcoma of the choroid, four of which were cured by enucleation. The remaining four died of other affections. He states that if the tumour is still confined to the eye, and the optic nerve unaffected, the chances are rather in favor of a complete recovery after the operation. I am therefore inclined to give a favourable prognosis in this case. The patient returned home on the fourth day after the operation, doing well.

My friend, Dr. William Osler, has kindly undertaken the examination of the minute structure of the tumour, and has likewise prepared a number of microscopic slides, which are here exhibited:

Histological Characters of the Tumour. By Wm. Osler, M,D., L.R.C.P., London, Prof. Institutes of Medicine McGill University.

Portions taken from the superficial regions of the tumour, and teased in ¾ oz. salt solution, presented a great solution of cells, almost all of which were rounded, very variable in size, and characterized by the presence of large vesicular nuclei and small clear nucleoli. With regard to size, three grades could be easily distinguished: 1st, small round cells, about the size of the white blood corpuscle, or, perhaps, a little larger, with well-defined nuclei; comparatively few of these contained any pigment. 2nd, cells from two to three times the size of white blood corpuscles, much more uniformly pigmented than the former, with very large nuclei, and finely granular protoplasm. 3rd, very much larger elements—five or six times the size of colourless blood corpuscles, containing

two or three nuclei, and not often pigmented. Compared with the others, these latter forms were scarce. Gradations between these varieties were common. Here and there throughout the specimens a somewhat elongated corpuscle was met with, but no characteristic spindle-shaped elements; indeed the tumour must be regarded as a very pure specimen of round-celled melano-sarcoma. The distribution of the pigment in the tumour was irregular, confined chiefly to the external portions, and extending into the interior as dark streaks; and according to the region from which the preparation was taken the prevalent cells would be pigmented or not. Individual elements from the darker portions showed different degrees of colouration, from cells containing only a few pigment granules up to others so densely crowded as to obscure the nuclei.

Portions, (after hardening in alcohol) taken with the sclerotic from the external region of the tumour, imbedded, and thin sections cut and tinted with Hæmatoxylin, show very well the structure of the growth, and its relation to the surrounding parts.

The sclerotic was nowhere affected, nor did it appear at all atrophied over the region of the growth. In one or two sections a slight increase in the cellular elements along the course of the vessels was observed, but this condition was by no means general. Immediately within this tunic was a layer, about half the thickness of the sclerotic, characterized by the presence of numerous long spindle-shaped pigment corpuscles, and others of a more irregular form. A delicate connective tissue with numerous blood vessels composed the matrix, so that this may be regarded as the external layer of the choroid very slightly altered. In some sections it would appear that the tumour involved the whole of the outer layer of the choroid for the round sarcoma cells abutted directly upon the sclerotic.

By a gradual transition we pass to the region of the tumour with abundant round cells closely aggregated together and very irregularly pigmented. At the most ex-

ternal part the fibrous stroma of the choroid is infiltrated to such a degree with cellular elements, that, in places quite an alveolar structure is given to the growth. In the deeper portions this is lost, and the cells appear crowded together without any intercellular tissue. Still further towards the centre, a well developed matrix, granular in character, is seen surrounding each cell. In thin sections many of these cells fall out and leave the connective tissue framework as an open net-work, in which here and there a larger cell is retained. Pigmented cells occur scattered throughout the sections, either singly, or collected in small clusters. A few hæmorrhages are seen towards the centre of the growth.

The portion of the retina lying upon the tumour was carefully removed and on examination proved perfectly healthy Along the course of some of the vessels minute extravasations were met with and groups of pigmented corpuscles were not uncommon. These latter were rather larger than the colourless blood corpuscles, and in one or two localities were observed to contain red blood corpuscles in various stages of transformation into melanin. After removal of the retina, a thin dark membrane could be stripped from the surface of the growth, which was found to be the innermost layer of the choroid, consisting of regularly polygonal pigment cells, beneath which the usual stellate pigment corpuscles existed in abundance, so that at no point had the tumour perforated the surface of the choroid.

Sections taken from the smaller tumour at the point of junction with the healthy tissues are very instructive, showing how the growth has originated from the central and inner region of the choroid, and in its onward growth split it into two layers, one of which, the external, remains in contact with the sclerotic, while the other invests the surface of the tumour. The advancing area of the growth in these sections is represented by a wedge shaped portion, composed of numerous round cells, and at its periphery several large vessels can be seen.

Case of Glioma of both Retinæ. Extirpation of Both Eyes.

By Geo. E. Fenwick, M.D., Prof. Surgery McGill University.

(Read before the Medico-Chirurgical Society of Montreal.)

I am induced, Mr. President, to bring before the Society this evening a case of glioma of both Retinæ, which came under my observation recently, and for which both eyes were removed. This case forms a fitting supplement to the very interesting paper just given by Drs. Proudfoot and Osler. It illustrates the second and third stages of the disease Glioma, and my friend, Dr. Osler, has furthermore kindly made a careful microscopical examination of the tumours in both eyes, which conclusively settles the question as to the nature of the disease, if any doubt had existed previous to their removal. These microscopic preparations are before you, and I feel certain that Dr. Osler will take pleasure in affording any information as to the particular locality, &c., from which the specimens have been taken.

The following report has been furnished to me by Mr. R. W. Powell, Clinical Clerk at the Montreal General Hospital :

L. P., aged 5 years, was admitted into the Montreal General Hospital, on the 10th December, 1875, suffering from glioma of the retinæ of both eyes.

History.—The father states that three years ago the child suffered from sore eyes. They were tender, red, slightly inflamed ; had little specks or pimples on the sight, and there existed great difficulty in looking at the light. Very little was done for the child, except bathing the eyes with a wash that had been procured from an apothecary. This state of things continued. Last March the family removed to Rouses Point, and at this time the child was almost perfectly blind. He improved somewhat after going to the country. Some time in June last, it was noticed that he would stumble over objects and run against things

in the room, as though his sight was seriously impaired. At this time the right eye looked swollen and prominent, and was tender. The child was brought into Montreal and shown to an oculist, who stated that an operation would have to be performed ; that the sight was gone in the right eye, and that it would be lost in the other. The parents were unwilling to consent to any operative proceedure and returned home. The eye gradually but steadily increased in size and was extruded from its socket. Some time in November the tumour opened near the inner canthus and discharged a considerable quantity of pus and blood. It bled freely on two or three occasions, when a scab formed over the part which had burst, and further bleeding was arrested. It was on the 8th December, that on passing through Rouse's Point, I was requested by the father to see his child, and I advised him to bring the child to Montreal, and that I should take him into the Montreal General Hospital and extirpate the tumour. The man said that he believed both eyes were affected, and I remarked that if such were the case, they ought to be both extirpated. I had no opportunity of examining the left eye, as my time was limited, and the little fellow was rebellious, and would kick and scream most vigorously when any person attempted to examine the eye, but the appearance of the right eye was unmistakable.

General Condition.—The child was moderately well nourished, though he appeared rather fretful and anæmic ; the thyroid gland was somewhat enlarged ; his appetite was very good, and he did not complain of any pain, except when the eyes were touched, or at night when he sometimes suffered considerably. The tumour of the right eye was the size of a small orange, covered with the unbroken mucous membrane, the lids considerably stretched over the mass. There was no appearance of a cornea, except, that at the upper and outer part of the centre of the mass there was a slight prominence, which I took for the cornea.

The left eye, when examined, was enlarged; there existed considerable intra-ocular pressure; the iris was fully dilated, and the margin of the pupil was surrounded by a serrated border; the lens appeared to be in the anterior chamber, and pressed up against the inner surface of the cornea; it was perfectly transparent, and the usual lustrous primrose hue was noticeable, but no distinct tumour was visible. The episcleral vessels were enlarged and radiated towards the corneal margin, and the conjunctiva and lids were red and swollen.

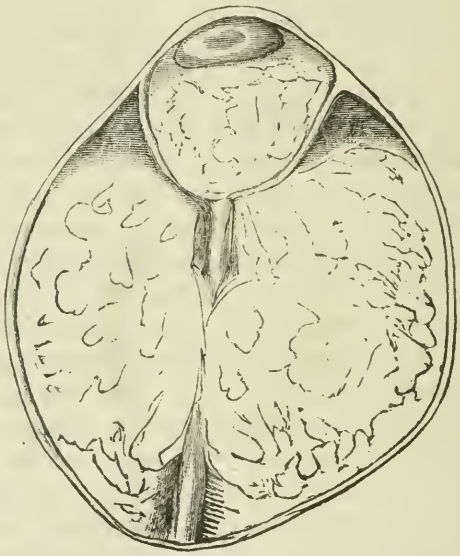
On Saturday, 11th December, both eyes were removed in the following manner: Chloroform having been administered, the outer canthus of the eye was slit and the upper and lower lids separated by a few touches of the knife from the investing membrane of the tumor. I now found that the periosteum of the orbit was involved in the mass, and with the finger it could with ease be stripped from the bone. This was done down to the very bottom of the orbit, when, with a curved pair of scissors, the nerve was divided, and the entire mass came away. A good spurt of blood followed, but was arrested with perchloride of iron, and the orbit plugged with cotton wool. The left eye was then enucleated in the usual way, the nerve divided close to the ball, but a second slice removed further back. There was very little hæmorrhage from the left eye. A piece of lint was placed over the wound, and soft pads of cotton wool, covered with a square of fine linen supported the lids; child removed to bed.

December 12. The child passed a restless night. The evening temperature was 100.4; morning temperature, 100.2; pulse was full, but rapid, about 140. Vomited once during the night; this was attributed to the chloroform.

13th. Last night the temperature about nine o'clock was 102; pulse still about the same. He past a good night; slept well, and this morning the temperature was down to 100.4, and the pulse had fallen to 136. He was ordered beef tea and corn starch. He appears very comfortable;

does not complain of pain ; his face is somewhat flushed, and he takes his food with a relish.

14th. Passed a good night, rested well; appears anxious for his meals ; the bowels have acted. Wound was dressed to-day ; there is considerable discharge from the right eye, less from the left ; much of the cotton was removed from the socket, and the part syringed out with carbolic acid lotion, one part in one hundred of water, as the discharge is rather fœtid.

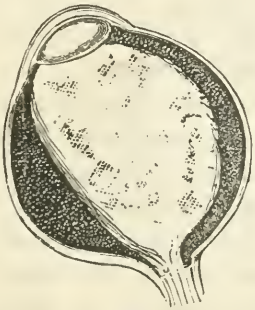


Section of Tumour of the Right Eye.

This treatment was continued throughout. The wounds were dressed every night and morning, and at each dressing the cavities were well syringed out with carbolic acid lotion. The pulse and temperature steadily fell, the former remained at from 90 to 100, and the latter became normal. The child was taken up and dressed each day, and, as far as the wounds were concerned, was well ; and on the 30th December his parents were told they might take him home.

As far as can be ascertained, there is no history of cancer in the families of either parent.

It may be asked why, in so hopeless a case, so far advanced, perform so serious an operation as the extirpation of both eyes. To this I can but reply that so far as the eyes were concerned the sight was gone, both eyes were destroyed. The operation was justifiable as a palliative measure even if the time had passed for its curative effect. The child was suffering very much from the effects of the disease, the gradual distention from pressure rendered existence most miserable. He was constantly moaning and crying, passed wretched nights, and this was producing a marked effect on his general health. We can hardly ex-



The Left Eye.

pect a non-recurrence of the disease, but we may reasonably hope for a short respite. However, the child has returned home happy and contented, or at least temporarily relieved from a condition of continued misery. I held out no hope to the parents of ultimate and complete relief from this wretched disease, but advised them should the disease reappear to return with him to the hospital. I shall watch the case with much interest, and may on another occasion record the final results. We give wood cuts of both tumours which will add to the interest of the case.

Histological and General Description of the Tumours. By Wm. Osler, M.D.

The tumour of right eye filled the whole orbit, and, on removal, presented a somewhat rounded mass about the size of a small orange. A meridional section, made through both eye and tumour, displayed a foreign growth filling up the former and extending above and posteriorly to the extent of about an inch in either direction. A tolerably firm capsule, strongly adherent to the tumour, enveloped the whole, and was at no point perforated. The eye-ball itself occupied the lower and anterior position, and quite half its mass projected beyond the tumour. Its limit was sharply defined by the sclerotic, which persisted as a pale white band, intimately united to the growth and much narrowed in certain localities. Posteriorly the eye-ball was of triangular shape, due to pressure of the tumour, the apex corresponding to the optic nerve.

The color of the surface section was whitish, reddened here and there by extravasations. Many parts, especially the more external, were of a pure milky white, unstained by blood. Other regions, markedly the inferior and intra-ocular, were of a uniform light red tint. The contents of the eye-ball consisted mainly of the morbid growth, together with the atrophied remains of the tissues of the eye. These latter, pushed forward against the cornea, were composed of an irregular mass of caseous matter, situated about the position of the lens, and probably representing its remnants ; whilst behind this was a considerable quantity of pigment matter—traces of the tissue of the choroid. About a line and a half from the inner surface of the cornea was another irregular dark line, best seen in the external region, which is to be regarded as the atrophied iris. Both anterior and posterior chambers are filled with a reddish, highly vascular growth. The situation of the ciliary muscle is clear, and its substance is converted into a soft friable mass. The whole of the intra-ocular growth was reddish in colour and

very soft. A hard fibrous portion existed in the centre, from which one or two bands extended to the upper and back parts of the ball. The optic nerve being imbedded in the tumour, about an inch of its length having been removed. The part in immediate connection with the eye is slightly thickened, while the remainder looked normal in size. The neurilemma was only slightly attached to the growth, so that the nerve was easily lifted from its bed. At no point could any distinct perforation of the sclerotic by the tumour be detected, but at the posterior part it was much thinned, and about the optic nerve the intra and extra-ocular growth seemed continuous.

In the left eye, the tumour was wholly intra-ocular, and as an irregular rounded mass, nearly filled the globe, extending from the nerve to the lens, the anterior surface of which lay against the cornea, while the posterior was imbedded in the growth. The choroid was *in situ* and slightly atrophied. Section of the tumour showed a tolerably white surface dotted over with a few small extravasations.

Sections taken from the smaller growth in the left eye show the characteristic small round cells of glioma, densely packed together without any distinguishable matrix. Numerous blood vessels were evident, and along their course spindle shaped and stellate pigment corpuscles abound. In the region of the growth no trace of any layers of the retina remain. The choroid is also involved in parts and its tissue infiltrated with glioma cells. Neither degenerative changes nor extravasations were present.

The larger tumour, occupying the right orbit was of essentially the same nature, but presented signs of fatty degeneration in the central portions, and very many coarse and fine extravasations. In the superficial extra-ocular region the gliomatous character of the growth was best seen, which differed in no respect from the tumour in the other eye. No matrix proper was apparent, though in some sections strong fibrous trabeculæ occurred, the remains probably of some of the tissues of the orbit. Sections of the optic

nerve showed the nerve tubules everywhere degenerated, but not involved in the growth. The neurilemma, on the other hand, was densely infiltrated with the characteristic small round elements.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Abscess between the Cranium and the Dura Mater, simulating Occipital Neuralgia. Under Dr. Ross. Reported by Mr. C. H. MURRAY.

Mary Moody, native of Ireland, aged 50, a strong looking woman, accustomed to hard work, was admitted into the Montreal General Hospital, Nov. 24th, 1875, under care of Dr. Ross. Has been a widow for five years; had seven children, two of whom are living; family history good: has been perfectly healthy till two years ago, when she was in hospital for pain in her left ear and sore throat; under treatment she was relieved. Since then she has been in hospital several times, and was always treated by different physicians for neuralgia of the left occipital nerve. Last summer was in hospital with popliteal cellulitis and threatening abscess.

The chief symptom complained of now is very severe pain along the course of the left occipital nerve, running sometimes along the left side of the head to the eye, the slightest pressure over the occiput and neck on the left side caused intense agony. The case was diagnosed to be one of neuralgia, and she was ordered a liniment of chloroform and aconite and hypodermic injections of morphia.

She continued in much the same condition, but much relieved by the hypodermic injections, till the 17th Dec., when she began to vomit and became very stupid, answering incoherently, like a person intoxicated. Urine and

fœces were soon passed involuntarily. There was almost complete paralysis of motion, and at the same time some hyperæsthesia of the general surface. The vomiting lasted till the night of the 18th, then ceased. She was delirious at night and very noisy, keeping the patients in ward awake. Brandy, wine and nourishing food were freely supplied.

20th—2 p.m. Is in a moribund condition ; extremities cold and livid ; lips blue ; features pinched ; pulse imperceptible at wrist ; heart sounds feeble, 100 ; resp. gasping, 40 ; is still partly conscious, and complains of great pain in the left side of occiput ; neck and lumbar region, hyperæsthesia of general surface marked : both pupils of medium size, respond to the stimulus of light ; urine and fœces passed involuntarily ; bladder ascertained to be empty by percussion.

She died at 12 (midnight), delirious and shrieking wildly for some time before death.

Post-mortem Appearances

Rigor mortis and hyperstatic congestion well marked. On dissecting off the scalp, about 1½ oz. of thick sanious pus was found lying beneath the pericranium on the posterior half of the parietal bone, and the posterior superior angle of right parietal and left upper third of occipital bone. This pus flowed from the interior of the cranium through two foramina, one oval, situated in the middle of the left half of the lambdoidal suture, about three lines long by one and a half broad ; the other, circular, about one and a half lines diameter, situated at the bottom of a depression, evidently of old standing, between the parietal and occipital bones. The bone externally did not show any trace of pus having long lain beneath the pericranium. On removing the calvarium about ℥ss of similar pus was found external to the dura mater in the position corresponding to the external abscess. The posterior third of the left parietal, the posterior superior angle of the right parietal,

left cerebral fossa and superior angle of occcipital bone were much eroded, and in the two places mentioned completely perforated. In many places the bone was quite translucent. The external surface of the dura mater beneath the abscess was a little toughened, the pus being slightly adherent to it. It was not much thickened. Its internal serous lining was intensely congested, but over the rest of the brain was perfectly natural. The sinuses of the brain were full of dark clotted blood. The pia mater was congested. Punctæ vasculosæ not well marked; the posterior lobe of left hemisphere was flattened, and brought to a sharp angle posteriorly. The substance of the brain throughout was perfectly normal. The ventricles normal. The skull was not symmetrical, there being a distinct prominence of the bone in the situation of the abscess.

Lungs.—Pleuræ adherent posteriorly to a considerable extent. Lungs healthy; dependent parts congested.

Heart.—Structure normal; a large ante-mortem clot existed in right ventricle extending into the pulmonary artery.

Liver congested. Spleen congested and soft.

Kidneys.—Right kidney, weignt 9½ oz., Left, 8½ ounces. Capsules non adherent; external surface of kidneys pale presenting numerous congested spots. On section the medullary substance was pale and coarse in appearance, soft and much increased in thickness; pyramids slightly injected.

A Third Dentition at the Age of Seventy-Three.—M. Echerac relates in the *Gazette des Hospitaux* (October 9,) the remarkable case of an old gentleman, aged seventy-three, who, after the manifestations of nervous symptoms for some time, and an abundant salivation, exhibited in his upper jaw, which had long been dismantled of teeth, some fine ones projecting about two millimetres beyond the edge of the gums. They were six in number—four incisors, one canine, and one small molar. These teeth were neither very white nor very strong, but formed an excellent substitute for those lost. Van Helmont relates a precisely similar case occurring at the same age.

Reviews and Notices of Books.

A Treatise on Human Physiology, designed for the use of Students and Practitioners of Medicine. By JOHN C. DALTON, M.D., p.p 825, sixth edition HENRY C. LEA, Philadelphia, 1875.

A Text Book of Human Physiology, designed for the use of Practitioners and Students of Medicine. By AUSTIN FLINT, JR., M.D., pp. 978. D. APPLETON & Co., New York, 1876.

Among American Physiologists the authors of the above works have for several years past occupied the most prominent position, and indeed the reputation of the American school of Physiology, if such can be said to exist, rests in great part upon the labours of these men.

A text book like Dalton's, which has arrived at the sixth edition may be regarded as almost above criticism, but the volume before us has received so many valuable additions, and is so much enlarged, that some notice is demanded of it. We know of no text book of Physiology, with the exception perhaps of Kirkes "Handbook," so suitable for students. The style is clear, the arrangement admirable, and the figures excellent. Though much increased in bulk, it is still a moderately sized volume, and not nearly so alarming in this respect as the one we have coupled with it at the head of this notice. Every chapter bears evidence of careful revision, and all the most important and trustworthy facts of recent physiological science have been incorporated. The sections upon the digestive secretions and development are enriched with the most numerous and extended original observations. The chapter upon the glycogenic function of the liver is especially good. In the development section we are glad to notiee three or four new figures from Balfour and His, illustrating the segmentation and formation of the blastodermic layers in the fowl's egg.

The whole of this portion of the work is well worthy the careful perusal of every practitioner. There are one or two things wanting which detract from the general excellence, and which we should like to see supplied in a subsequent edition. We looked in vain for a description of the physiological anatomy of such important organs as the kidneys ; there is not even a reference in the index to such structures as the tubuli uriniferi or the malpighian tufts. Again the consideration of the spleen and other ductless glands should not be wholly omitted in such a treatise. With these exceptions, however, too much praise cannot be given to the general execution of the work.

Dr. Flint, jr., has for some years past been engaged in teaching Physiology as Professor of that branch in the Bellevue Hospital Medical College, and his devotion to the science is evidenced by the amount of labour and research which are to be found in his works on this subject. He has already given to the profession a work in five volumes entitled "the Physiology of Man." This is an exhaustive treatise, designed more for teachers, but which we regret to say, was not forwarded to us for review. The present book assumes to be a condensation of the volumes above alluded to, and the author states in his preface that many of the subjects treated of rather elaborately in his large work are here rendered in a more concise form. We cannot help thinking that as a text-book for students the process of condensation might have been carried still further. It is a large tome, and, though replete with interesting information, will, we are afraid, seem too formidable to the busy student, who has now-a-days so many subjects to master that small text books to read with his "notes" are chiefly sought after. However, for senior students and practitioners desiring a full and lucid account of any part of the physiology of man we know of few books to which they could with more profit refer.

In the opening chapter the general character, histology, and chemical composition of the blood are treated of in a

most exhaustive manner. Considering the importance which the colourless corpuscles have assumed in recent pathology a more extended account of the peculiar amœboid changes might have been given. Dr. Flint expresses himself in opposition to the current views on the development in the adult of the red blood corpuscles from the colourless ones, and looks upon them as fixed anatomical elements, not undergoing destruction and regeneration as commonly supposed. No reference is made to the observations of Recklinghausen and Golobew of their development in the frog at the expense of the colourless, nor is there any mention to be found of the development of these bodies in the marrow of bones, a fact established by recent German investigation. The views of Richardson on the cause of the coagulation of the blood, the evaporation of ammonia theory, maintained in his larger work, are here abandoned. Schmidt's account of fibrin forming factors, para-globulin and fibrinogen, are not regarded as established.

The physiology of circulation is excellently given, and accompanied by many beautiful illustrations. It is very interesting to have here reproduced some of the figures of the older anatomists, as Harvey and Fabricius, and they look remarkably well, even more faithful to nature than many others in the work.

Under Respiration, a good account is given of the author's experiments, which prove that the respiratory sense, the "*besoin de respirer*," is situated in the tissues.

The subjects of alimentation and digestion receive full attention. We notice that Dr. Flint still adheres to the belief that the acid of the gastric juice is lactic, and not hydrochloric.

The recent researches on the lymphatic system have not received the attention they deserve, and the author does not accept the existence of serous canaliculi, in which most histologists now believe the lymphatic capillaries originate.

The article on the kidneys and urine is exceedingly good,

the latter being a subject to which the author has paid special attention.

In connection with the excretory function of the liver, the author's discovery of the elimination of cholesterine by this organ, and its subsequent transformation in the intestines into stercorine, is referred to.

The chapters upon the nervous system and special senses are well given, and notice is found in the former of the recent experiments by Hitzig and Ferrier.

The article on generation is ably written, and embellished with three superb full-sized plates, two illustrating the early embryos of the vertebrates, from Hackel, a consideration of which ought to be sufficient to make anyone an evolutionist; while the third represents a human embryo at the ninth and twelfth weeks.

The illustrations are remarkably fine, a large proportion of them being from Sappey's large work on anatomy. Several micro-photographs from the Army Medical Museum form novelties in the way of illustration; some of them are very good, as of the blood corpuscles and muscles; others, as the one of cartilage, had better have been left out. We would call special attention to the figure of the mesentery, showing the lacteals, copied from a work of Asellius, published in 1628, as illustrating the state of anatomical knowledge at that period.

We regret that the number of original illustrations are so few. Borrowed figures we consider one of the most objectionable features in a text book by an original worker in Physiology. One of the great merits of Prof. Dalton's work is the number and excellence of the original illustrations. In this matter more than any other, a man should "neither a borrower nor a lender be."

Throughout the work it is very evident that Dr. Flint received his physiological education in the French school. He displays a much more extended knowledge of the French literature of the subject than that of the English

or German ; indeed it would sometimes appear as if the latter had not received full justice.

Altogether the work before us is one that we can most heartily recommend, and though it lacks that philosophic treatment of subjects which characterizes Dr. Carpenter's large Treatise, we have no doubt that in America it will, as one of the most exhaustive text books in the lauguage, largely replace that work.

On Poisons in Relation to Medical Jurisprudence and Medicine. By ALFRED SWAINE TAYLOR, M.D., F.R.S., F.R.C.P., London, and Lecturer on Medical Jurisprudence in Guy's Hospital. Third American, from the third and thoroughly revised English Edition ; with one hundred and four illustrations. 8 vo., pp. 788. Philadelphia : Henry C. Lea, 1875.

A new edition of Taylor on Poisons will be hailed with satisfaction by the profession, as the want of a new treatise specially devoted to the subject of poisons has long been felt. Toxicology as a department of medical jurisprudence has very much progressed during the past ten or fifteen years. This has been rendered necessary from the large addition of new remedies which year by year are being made to the list of Materia Medica. Many of these substances contain principles of great potency ; the action of some is ill understood, and the chemist is almost daily discovering new compounds, so that the study of toxicology has been rendered more attractive and essential.

This treatise on poisons must be regarded as a new work, inasmuch as the greater part of it has been re-written. The changes in this edition have been rendered necessary through changes in nomenclature, classification, besides the discovery of many noxious substances, whose action on the system has not been definitely determined.

Very great good is being done through physiological inquiry. To ascertain the action of certain substances or

their compounds, experiments have to be instituted. These are usually conducted on the lower animals, and although there are those who condemn this method of research as unnecessary and objectionable, and go so far as to endeavor to put a stop to it by legislative enactment, yet there can be little doubt that as a system of scientific investigation it must in time afford results which will go far in the repression of crime, and in its exposure.

In speaking of this work, the author states that it is not intended to be a complete history of poisons and poisoning, as the subject is so extensive that it would be impossible to compress all that could be said into the narrow space of a single volume; nevertheless, little or much, it is a volume indispensable to the student and practitioner, more especially to those who enter upon the duties appertaining to medical jurisprudence. The entire work has been remodelled. The first twenty-two chapters are devoted to general considerations; such as the definition of the term poison; mode of entrance of poisons and of their elimination; detection of poisons; chemical and physical characters of poisons; organs specially affected by poisons; influence of habit; classification of poisons; evidence of poisoning in the living; diseases resembling neurotic poisoning; evidence of poisoning in the dead body; inspection of the body and points to be observed; objects of a chemical analysis; evidence of poisoning from experiments on animals; and moral and circumstantial evidence in cases of poisoning.

The next part of the work is devoted to special poisons, and is divided into irritant poisons and neurotic poisons. Under the first headings we have, mineral irritants; acid poisons; alkaline poisons; non-metallic irritants; metallic irritants; vegetable irritants; animal irritants. And under the general caption of Neurotic Poisons, we have the following sub-classes: Cerebral or narcotic poisons; spinal poisons; cerebro-spinal poisons; and cerebro-cardiac poisons. Continental chemists appear to be labour-

ing in this field of research, and the Germans in this as in all others, with their customary exactness. The colour tests for the alkaloids, when taken alone, may fail to give satisfactory evidence of any one of them. Taking any special alkaloid, its detection by the colour test might lack that certainty which would be demanded by a court of law, but when superadded, the toxicologist brings into the field of investigation physiological experiment, the argument then becomes complete, and the answer positive. Indeed, fn some notable instances the chemical expert has had alone physiological tests to guide him, and these have been so thoroughly convincing as to leave no opportunity for doubt. In speaking of tests for strychnine poisoning, we are at a loss to account for the absence of all mention, on the part of our author, of the process recognized as Rodgers and Girdwood's method. Our attention has before been attracted to this studied silence of all mention of this process, which is admitted on all hands to be a most excellent method, and one by which, according to Fresenius, in his work on Qualitative Analysis, Messrs. "Rodgers and Girdwood succeeded in detecting by this method .03 mgrm. of strychnine."*

Dr. Girdwood is at present residing in our city, and occupies the chair of Practical Chemistry in McGill University. Furthermore, while on this subject, we may observe that in three cases of poisoning by strychnine which came before our assize courts, the records of which were published in the early volumes of our journal, Dr. Girdwood satisfactorily demonstrated the presence of strychnine in each case. In one the body had been in the grave for five months, and after exhumation the poison was proved to exist in a portion of the thigh bone, as well as in other parts of the tissues. In this case we were present at many of the chemical and physiological experiments, and were satisfied with their accuracy. It seems

* Qualitative Chemical Analysis, by Dr. C. Remigius Fresenius, seventh edition, edited by Arthur Vacher. London: John Churchill & Sons. Page 249.

strange that Dr. Taylor should pass over, not only in this work, but in all his works, all recognition of the merits of his fellow workmen. We trust it is not from petty spleen. It cannot be from unworthy rivalry, because our author occupies deservedly a high position as a medical jurist. We will say no more on this subject now, but merely add, that systematically ignoring a process recognized by all other writers on this subject as deserving of notice, forms a unique feature of this very excellent treatise on poisons.

In every other respect this is a work of peculiar exeellence, and will without doubt become the standard of reference by the medical jurist on all subjects of poisons and poisoning.

With regard to typographical execution, we need only state that it is done in Henry C. Lea's best style,

The book is to be had at Dawson Bros., St. James street.

Periscopic Department.

SURGERY.

Case of Aortic Aneurism successfully treated by the Distal Ligature. By THOMAS ANNANDALE, F.R.S.E., Surgeon to the Edinburgh Infirmary, and Lecturer on Clinical Surgery.

R. B., aged 62, was first admitted under my care in August 1874, on the recommendation of Dr. Wilson of Motherwell. The patient had suffered from symptoms of thoracic aneurism for about six months; and, as these were steadily increasing in severity, he was advised to come into the infirmary.

On admission, there was a distinct aneurismal tumour, pulsating strongly, and passing up from behind the clavicle and sterno-clavicular articulation into the neck, as far as the cricoid cartilage. The trachea was displaced towards

the left side by the tumour, and the inner half of the clavicle and its articulation with the sternum were pushed forward by the portion of the tumor under them. There was a well marked *bruit* to be heard on all sides of the swelling, and there was dulness on percussion over a considerable area, corresponding to the situation of the thoracic part of the tumour. In addition to these symptoms, the patient had a constant irritating cough, pains shooting up into the head, want of sleep, and he was losing flesh markedly. He was ordered to keep in bed, and iodide of potassium, in twenty grain doses, was given three times a day. After one month of this treatment, he left the hospital with his symptoms somewhat relieved, and he was advised to continue the iodide of potassium.

On February 8th, 1875, he was again admitted into my wards, as his symptoms had returned and become more troublesome. He had been unable to continue the iodide regularly, owing to the expense of it. An examination of the tumour showed an increase in its cervical portions. It had not only spread higher up, but it had also spread laterally so as to overlap the site of the subclavian artery. The upper portion of the tumour felt softer; and it was this portion which seemed to be increasing most rapidly. After carefully considering the circumstances of the case, and determining that pressure on the right carotid artery, immediately above the cervical portion of the tumour, very much diminished the aneurismal pulsation, it seemed to me a favourable opportunity for practising the distal ligature. The position of the tumour did not permit the subclavian artery to be ligatured; but there was just sufficient room to secure the common carotid above the cervical portion of the aneurism.

The patient having given his consent, I, on the 2nd of March, ligatured the common carotid immediately under the omo-hyoid muscle, which was drawn upwards, so as to reach the vessel. The internal jugular vein was unusually large and dilated; and some care was necessary to avoid

injuring it, as it completely overlapped the artery. The operation was performed under the carbolic spray, and the ligature used was prepared catgut. The immediate effect of the ligature was to almost stop the aneurismal pulsation, and to convert the strong pulsation into a kind of quivering motion. Not the slightest local or constitutional disturbance followed the operation; and the wound was healed on the 17th. A week afterwards, the patient was out of bed. The day after the operation, the patient expressed himself as greatly relieved. He no longer himself felt the pulsation in the tumour, and the pains in his head and neck had disappeared. The pulsation in the aneurism was felt to be very feeble, and the tumour itself was decidedly smaller.

The patient left the hospital a few weeks afterwards, his symptoms continuing in the same improved condition, and the tumour gradually becoming firmer to the feel.

From time to time, the patient returned from the country to show himself, and his state on December 27th was as follows: His general health was good, and he had no pain or other uneasiness. He could stoop freely without giddiness, and could go up and down stairs easily. The tumour had continued to diminish in size, and its cervical portion was fully half an inch lower in level than before the operation. The whole tumour had become much flatter, and also much firmer to the touch. On placing the hand over it, only a very feeble pulsation could be felt, but the pulsation was slightly stronger over the upper part of the cervical portion. A *bruit* could still be heard on all sides of the tumour, but it was not nearly so loud as formerly.

Remarks—Although it cannot be said that the aneurism in the case reported was completely cured, there can be no doubt as to the great relief which followed the operation. The case, therefore, appears to me to furnish additional evidence in favor of the distal ligature in suitable examples of otherwise incurable aneurisms, and it also tends to confirm the opinion of Mr. Holmes and Mr. C. Holmes and Mr. C. Heath, who have so ably written on the subject.

From my experience in other cases of thoracic and cervical aneurism and from an observation of cases treated by my friend and colleague Dr. G. Balfour, I can testify to the value of iodide of pottassium in relieving the symptoms and promoting coagulation in this disease : but I am inclined to express the opinion that, should a fair trial of this drug fail to give complete relief to the symptoms, the distal ligature of the carotid should be employed, provided the case should be a suitable one for the operation. The test of the suitability of the case for operation being the effect which temporary pressure on the distal portion of the carotid has on the aneurism pulsation, and should there be sufficient space to ligature the common carotid above the tumour, then I think the case is a proper one for operative interference. I also think with Mr. Holmes that operative interference should in the first instance, be confined to the ligature of the carotid, ligature of the third part of the subclavian being resorted to if advisable at a future stage of the progress of the case.

The case reported, further illustrates the value of the antiseptic catgut ligature and other antiseptic precautions, the combined use of which has, in my opinion, removed all the most serious risks in connection with the ligature of the arteries.—*British Medical Journal.*

On the Value of Nitric Acid in the Treatment of Diseases of the Neck of the Womb. By Edward John Tilt, M.D.

Dr. Braithwaite's high estimation of nitric acid as a caustic for diseases of the cervix will have due weight with me when I prepare another edition of my *Handbook ;* but he will find it already stated there, "that the acid nitrate of mercury and the acid nitrate of silver owe their causticity to their free nitric acid, while the metals may give these preparations alterative properties that their free nitric acid

does not possess." Récamier first used the acid nitrate of mercury. It was the principal caustic used by Lisfranc; and, in the beginning of his professional career, Dr. H. Bennet tried to ascertain its effects, as compared to nitric acid, in a certain number of similar cases, and he convinced himself that the acid nitrate of mercury was the better of the two. Dr. Braithwaite's fear of mercurialising the patient need not count for much; for, although I thought right to warn against this possibility, it has never occurred in my practice.

I quite understand the excellent results that Dr. Braithwaite has obtained from the use of nitric acid in a certain set of cases; but I think he is far too general in its recommendation, and that he undervalues nitrate of silver because it is so often used where it can do little or no good. Every practitioner has witnessed the good effects of this agent in morbid conditions of the fauces; and when the mucous membrane lining the cervix is alone inflamed, and *recently* so, there is no better remedy than the liquid or the solid nitrate of silver, and the patient should be cured in from three to six weeks. Occasionally, nitrate of silver causes slight bleeding of an uterine sore; but, judging from my practice, Dr. Braithwaite has exaggerated this occurrence; and then it is easy to have recourse to carbolic acid, or to tincture of iodine. Knowing that such cases can soon be cured by nitrate of silver—an agent which is easily applied, gives less pain than nitric acid, and can scarcely do harm—I still recommend its use to those who have little experience of uterine surgery; for, until they have acquired the habit of using nitric acid, they will find that it has an ugly tendency to run, and so increase the size of the sore to which it was applied, supposing they examine a week or ten days after its application.

In a second set of cases, it will generally appear from their history, that endocervicitis set in after a miscarriage or a confinement, and that it has already lasted several years; without, however, causing any marked damage to

the substance of the cervix. Dr. Braithwaite's advice applies admirably to these cases ; for their treatment by nitrate of silver is distressingly long, whereas it is singularly curtailed by one or two thorough applications of a strong acid.

I demur, however, to Dr. Braithwaite's recommendation to leave the patient without examination for a month, unless the os uteri be patulous, and the calibre of the cervical canal such as to render its contraction rather an advantage than otherwise. It often happens, however, particularly in the unmarried. that the cervix will just allow the uterine sound to pass through a mucous membrane so diseased as not to be willing to get well unless it be touched with a strong acid. After applying the acid nitrate of mercury or nitric acid to the cervical canal in such cases, the practitioner had better examine the patient every week, and pass intot he cervical canal a pencil laden with a solution of nitrate of silver, or, at the end of two or three months, he would have the annoyance to find that his treatment has induced cervical stricture.

A third and less numerous class of patients comprise women in whom long continued chronic cervicitis is accompanied by considerable hard hypertrophy of the cervix, inflammation of the mucous membrane having caused its surrounding tissues to become hypertrophied. Sometimes the enlargement of both the body and neck of the womb appears to have begun in defective uterine involution. At all events, when I am consulted on such cases, they have lasted seven or eight years, or longer, to the misery of the patient, to the calamity of the family, and to the opprobrium of the profession, for such cases go the round of all those who are accepted as authorities for diseases of women. The patients do not get cured because consulting men have no faith in the only way of curing such cases—the application of potassa fusa cum calce, or some equally strong caustic, to the cervical canal. Dr. H. Bennet put this forcibly before the profession twenty years ago. He made

converts of Sir James Simpson and many eminent practitioners in this and in other countries; and I discussed, in the best way I could, this mode of treatment, in all its bearings, in thirty pages of my *Handbook*. The treatment is solidly based on the recognized utility of caustics in a host of surgical complaints, and it has been well established by the Lyons school of medicine; but when such patients come and tell me what they have had done to them by men in authority, I never learn that a strong caustic has ever been applied. I hear of long ineffectual treatment with nitrate of silver, of an acid having been used, of a pessary to support the womb, of uterine di atation, of division of the cervix, or of the leaving in the womb of one of those thirty intra-uterine pessaries which were handed round on a tray, one night when I had the honour of presiding over the Obstetrical Society of London. I even have heard that there are practitioners who believe that they can benefit their patients by introducing the index into the vagina, to attempt to rectify a moderate amount of uterine displacement, three times a week, for two or three months; but I never hear that trial has been made of the only mode of treatment likely to effect a radical cure of these cases.

To resume the preceding remarks: instead of advising nitric acid in all cases of cervical disease requiring a caustic, as Braithwaite seems to do, I now hold—1. That, in comparatively recent cases of endocervicitis, nitrate of silver, tincture of iodine, or carbolic acid, suffices; 2. That chronic cases of endocervicitis had best be treated by acid nitrate of mercury or nitric acid; 3. That hyperchronic endocervicitis with considerable cervical hypertrophy requires potassa fusa cum calce, or some strong acid.

Since these remarks were penned, Dr. F. Churchill of Dublin has endorsed Dr. Braithwaite's views respecting the all-sufficiency of nitric acid in all cases of chronic cervical inflammation, and I am sorry to differ from so eminent a pathologist.—*British Medical Journal.*

Use of Perchloride of Iron in Post Partum Hæmorrhage. By Lombe Atthill, M.D., Master of the Rotunda Lying-in Hospital, Dublin.

The case recorded by Mr. Boddy, in which death followed almost instantaneously on the injection of a solution of the perchloride of iron, conveys a very important lesson. It is, as far as I am aware, the first recorded case in which there are just grounds for believing that death was due to the use of the styptic; but, even here, the cause of death remains doubtful, there not having been a *post mortem* examination, a matter greatly to be regretted. Mr. Boddy's conclusion that "without doubt death resulted from the action of the solution of iron upon the lining membrane of the uterus" is not, in my opinion, correct. First of all, the uterus has not, immediately after delivery, any "lining membrane" properly so called; next, Dr. A. H. Ringland has, in several cases of *post partum* hæmorrhage recorded by him, carried the *solid perchloride* into the uterus and applied it direct to the interior of the uterus without producing any injurious results(*vide Proceedings of the Dublin Obstetrical Society*, session 1873-74).

I am not in a position to give an explanation of the cause of death in Mr. Boddy's case; but I believe it proved from Dr. A H. Ringland's cases, in which he applied the solid perchloride to the inner surface of the uterus, and from my own (*Dublin Medical Journal*, April 1874), in which I injected a small quantity of a strong solution into the uterus, that the application of the styptic to the inner surface of the uterus is not *per se* a dangerous practice.

I would point out that in Mr. Boddy's case an unnecessarily large quantity of the stypic was injected; for, though "the hæmorrhage ceased immediately on the injection of the solution", the process was continued till the patient gave a shriek and died; and to this continuance of the injecting process after the purpose for which it was employed was attained, the fatal result, in my opinion, is to be attributed,

which probably would not have occurred had but three or four ounces of a strong solution (one part of the strong liquor to two of water) been employed.

I think the profession are under a great obligation to Mr. Boddy for publishing this case.—*British Medical Journal.*

Treatment of Abscess of the Breast.

A point of practical surgery which is of frequent occurrence has been brought by M. Gillette before the Society of Medicine of Paris. The question, namely, whether an abscess of the breast should or should not be opened. We are here speaking only of parenchymatory abscesses, for superficial ones of course open *per se*, and in regard to submammary abscesses, all surgeons agree that they should be opened as soon as it is clear that they have formed. Since the occurrence of several fatal cases from erysipelas, in consequence of parenchymatous abscesses opened by the bistoury, some surgeons, M. Gosselin amongst others, are in favour of waiting and allowing the abscess to open spontaneously. M. Polaillon, again, maintains that by this method of treatment the opening left is the smallest possible, which is a matter of importance. On the other hand, there are surgeons who make a free and crucial incision into the breast without considering the liability there is to the entrance of germs of infection, or the possibility of fistulæ consecutive to the division of the galactophorous ducts. Between these two opposite methods of treating abscesses of the breast, there is still a third, which consists in puncturing the abscess, or at least of making a very minute opening into it. M. Gillette proposes to open the abscess not with the bistoury, but with Vienna paste. The objections to this plan are, however, obvious. There is the difficulty of reaching the abscess if it be deep, the danger of giving rise to fistulæ, which is greater even than after the use of the bistoury, and lastly the cicatrix, which is much more apparent than by either of the other methods. —(*Gazette Médicale de Paris*, No. 42, 1875.) *Practitioner.*

Moorfields Ophthalmic Hospital. Cases under the care of MR. HUTCHINSON. *Syphilitic Keratitis at an unusually early age.*

Amongst the patients at Moorfields on Monday morning, December 13th, 1875, was a child aged three, who was suffering from well-marked and symmetrical interstitial keratitis of about a month's (?) duration. The child looked healthy, and had a good set of milk teeth, but there was the history that it had been treated at St. Bartholomew's Hospital in infancy for a long continued rash and severe snuffles, and that it was then not expected to live. Mr. Hutchinson remarked that the interest of the case was in the unusually early age at which the keratitis occurred. There could, he said, be no doubt, from its character, that it was due to inherited syphilis, but he did not recollect ever to have identified this form of eye disease in so young a patient; he had several times seen it at five years old, but as a rule it did not occur till from eight to ten, and was yet more frequent about the time of puberty; it might even be delayed to the age of thirty or thirty-five, and then develop in a most characteristic manner. He was not prepared at present to give any explanation of this wide difference of range.

Suppuration of the Lachrymal Sacs in Infants.—A child three years old was brought on account of discharge of matter from the eyes. The mother stated that her doctor discovered within a few days of the child's birth that matter came from the corners of its eyes, and that this had persisted ever since. There had never been any inflammation of any part. On pressure over the lachrymal sac pus regurgitated freely through the canaliculi. Mr. Hutchinson remarked that he had seen but one similar case; in that instance he was consulted by a surgeon in the case of his own child, an infant of a few days old, which had suppuration of both lachrymal sacs. There was no redness or evidence of inflammation. Pressure over the sac caused a free escape of puro-mucus. On account of the delicacy of

the parts it was thought better, for a time at least, to abstain from mechanical treatment ; and in the course of a few weeks, under the use of an astringent lotion, it entirely ceased. It was very difficult to form any conjecture as to the cause of the symptom in these two cases. Both the children were quite healthy ; in both it occurred so immediately after birth that it was difficult to suspect any exposure to cold, and in both it occurred on each side, making the accident of any accidental cause improbable.—*The Lancet.*

MEDICINE.

The Physiological Action of Arsenic.

A student named Kossel undertook a series of researches in the Physiological Institute at Berlin, upon the influence exerted by cautiously increased, but ultimately fatal, doses of arsenic, upon the economy of dogs, but having to leave Berlin before they were completed, Gahtgens continued them, and gives the following as the results obtained. The occasion of the research was the remarkable parallelism which exists between fever (pyrexia ?), diabetes, and poisoning with phosphorus in regard to the occurrence of remarkable increase in the disintegration of tissue albumen, in Voit's sense of the word. Poisoning by phosphorus is characterised in addition by the deposition of fat in the tissues of various organs, which also appears to occur after the use of arsenic and antimony. From an anatomical and pathological point of view the action of arsenic must be regarded as analogous to that of phosphorus, to which it presents so many points of analogy. If the ordinary view be accepted, that the fat is formed from the contents of the cells (of the peptic, hepatic, renal, canalicular cells) the question arises, what becomes of the nitrogenous constituents of these cells ? To afford an answer to this question a dog, weighing 44 lbs., was sufficiently fed for fifteen days and then completely deprived of food, whilst arseniate of

soda was administered by means of a sound. The experiment was continued for ten days, and careful examination was made of the urine and fæces. The result of this showed that the albuminous substances did probably undergo disintegration and that the nitrogen was eliminated in the form of urea which underwent considerable increase. (*Centralblatt f. d. Med. Wiss.* No. 32, 1875.)—*Practitioner.*

Gelsemium Sempervirens as an Antineuralgic.

Dr. A. Jurasz of Heidelberg, having had his attention drawn to the the efiects of this drug in cases of neuralgic toothache, as detailed by Wickham Legg, and Sawyer, proceeded to try it in various cases of neuralgia, and corroborates the results obtained by those observers. The tincture was usually employed in doses of from five to twenty drops. The first case was that of a man who suffered from neuralgia of the first branch of the fifth nerve on the right side. Quinine was given internally, and veratria ointment was applied externally, without benefit. The action of the gelsemium was here excellent, the patient being perfectly and permanently freed from his pain in the course of three days, five drops only being given every eight hours. A second case was one of brachial neuralgia, a third of sciatica, and a fourth and fifth of trigeminal neuralgia, in all of which the results were satisfactory. On the other hand, however, it failed in a case of hemicrania of long duration, and in two cases of muscular rheumatism. (*Ibid.* No. 31, 1875.)

Gelsemium. Dr. O. Berger (*Centralblatt*, No. 44, 1875,) on the other hand, states that the results of experiments with this drug on patients, both the tincture and extract being used, have been in the highest degree unsatisfactory. The greater number of the patients were the victims of trigeminal neuralgia, partly of peripheral and partly of centric origin, while others suffered from neuralgic pains in different parts of the body, and insomnia. He quite admits that the remedy possesses considerable activity,

various unpleasant symptoms have been experienced by the patient as Vertigo, diplopia, ptosis, difficulty of moving the tongue, stiffness and trembling of the hands, numbness of the fingers, chilliness and general malaise, vomiting, and last though not least, dyspepsia. Even when the doses did not exceed seven grains of the extract.—*Practitioner.*

Sulphide of Calcium, a Remedy for Diabetes. By J. M. Elborough Scatliff, M.B.

Some few days since I was called to see a medical friend (well known to the profession) who was suffering from a localised inflammation threatening to terminate in suppuration. He was also the subject of diabetes, for which he had on a former occasion undergone the usual treatment (bran-bread, etc.) at the hands of an eminent London physician.

Together with the onset of the inflammation above referred to he had an aggravation of all the diabetic symptoms come on, and he was, when I saw him, passing quarts of water night and day (sp. gr. 1028). At my request he tried Dr. S. Ringer's treatment (calc. sulphide one-eighth grain ter die), first in the form of powders mixed with sacch. lactis gr. iij., and afterwards in pills (made by Mr. Cox, of Brighton). He *immediately* experienced great relief. Two days after he was passing only a normal quantity of water (eq. gr. 1023·5), and felt "quite comfortable." He had kept to his ordinary diet, and had not in any way avoided any amylaceous foods at the time.

I find that Garrod speaks of the sulphide of ammonium as useful in diabetes, but only in so far as it "controls the morbid appetite"; but here was a case in which the whole train of morbid symptoms was cut short in a quick and decisive manner by the calcium sulphide.

The inflammation also terminated in resolution, no pus forming. The patient *most emphatically* attributed his relief entirely to the action of the sulphide.

13, Charlotte-street, Marine-parade, Brighton.—*Medical Times and Gazette.*

CANADA

Medical and Surgical Journal.

MONTREAL, JANUARY, 1876.

CORONERS' INQUESTS.

It is far from our desire to serve up to our readers a dish of grumbling and fault finding. These are Christmas times, when peace and good will ought to be the rule—in fact, were it a rule rigidly observed from the 1st of January to the 31st of December in each year, mankind would be all the better for it. Scripture tells us that "it must needs be that offences should come, but woe unto that man through whom the offence cometh." This points to the duty of exposing offences when they do occur.

We have on several occasions complained of the loose manner in which coroner's inquests are conducted in this district. On a recent occasion, a sad occurrence connected with the destruction of valuable life through fire was followed by Coroner's inquiry. This was so thoroughly unsatisfactory as to excite public indignation, and a second searching inquiry had to be gone into before a special jury.

An inquest touching the cause of death of an individual is attended with a certain amount of outlay which has to be borne by the country. That outlay we should be willing to see freely made, provided the Coroner, and his jury render a truthful and reasonable verdict. The object of the Coroner's investigation is to ascertain without doubt the actual cause of death and not a supposed cause. In matters of this kind there should be no speculation, no hasty jumping at a conclusion. A man falls down in the

street and dies, the Coroner holds an inquiry and instructs his jury to bring in a verdict of death through the visitation of God, from disease of the heart. The poor heart which is blamed for causing the man's death has never been examined. The man may have died from any other lesion, but, this covers the ground, it satisfies the Coroner, he is reported to be "such a nice gintleman, so kind and humane, he did not let those horrid doctors cut poor Mike's body all to pieces." A case of this kind quite recently occurred.

A man, whether through accident or design, we know not, received a blow on the head, producing a depressed fracture of the skull. He was brought to the Montreal General Hospital, and there died. An inquest was held, but the man was related to Mr. Alderman Somebody's wife's cousin, and the body was not to be opened. The Coroner put on his double gas magnifying spectacles, and saw through the case at once. The heart was not blamed on this occasion,—it was still the visitation of God ; but whether the Coroner had witnessed the visitation from on high or not we are not informed. This is merely one instance of what is almost a daily occurrence. Now, we do think that the Government of the country should issue special instructions to their officials. It would seem that inquests now a days are held merely to satisfy a form of law and put the customary fee into the pocket of the Coroner. In this district at least it is a perfectly useless form in the large proportion of cases, and although we do not think the office should be altogether abolished, yet we might add that if such were determined, we feel convinced that the administration of justice would not in any way suffer, and the country would be saved a considerable outlay.

ANNUAL REPORT OF DISEASES OF THE CHEST,

UNDER THE DIRECTION OF HORACE DOBELL, M.D.

Wh have received a copy of this work, which forms a most interesting and instructive volume of 353 pages. It

is a retrospect of all that has been published, on diseases of the chest, during the year from June, 1874, to June, 1875. We give for the benefit of our readers the advertisement, which occupies the place of preface, and introduces the work to the reader. We may remark that Dr. Dobell published a somewhat similar work in 1869 and 1870. These volumes, however, comprised reports on the progress of practical and scientific medicine in different parts of the world. The scheme was, perhaps, too extensive and fell through. In this work the editor has confined himself to diseases of the chest, and we trust that his efforts will be well sustained by his professional brethren. The work will form an invaluable source of information and reference, and should be in the library of every physician who desires to keep *au courant* with the literature of chest affections.

Advertisement to Vol. I.

Towards the close of each year will be published a complete *précis* of the year in that Department of Practical and Scientific Medicine which includes the Anatomy, Physiology, Morbid adatomy, Pathology, Diagnosis, Etiology, Materia Medica, Therapeutics, Climatology, etc., etc., of the Thoracic Organs and their immediate associates.

"Dr. Dobell's Reports on the Progress of Practical and Scientific Medicine in different parts of the World," having been discontinued in consequence of the scope of the work making it impossible to confine its extent and expenses within reasonable limits, the original design, as announced in 1868, of a Departmental Report has now been resumed, with some modifications of detail, and arrangements made for a Complete Annual Report on Chest Diseases.

Although the department selected is the widest and most important in medicine, it will be practicable, by keeping within its boundaries, to produce such a complete *précis* of all important work, that these Reports, when collected from year to year, will constitute a most comprehensive,

concise, and reliable book of reference on Chest Disease, and will enable the Medical Practitioner readily to compare the works of different anthors, instead of relying upon those of any one, and to see at a glance the latest improvements in treatment; while to the Scientific Student they will present an epitome of modern discovery and research.

THE CANADIAN JOURNAL OF MEDICAL SCIENCE.

We have received the first number of a new monthly periodical, published in Toronto, and edited by Drs. W. Ogden and R. Zimmerman. It is very creditably gotten up, being of imperial octavo size, with double columns.

The editors, in their leader, remark that they have made such arrangements as will, they believe, enable them to produce a journal of some value to the Canadian practitioner. It is stated that they have secured able assistants and translators, through whose industry they hope to lay before their readers an epitome of useful and practical matter from British and foreign sources. We fully believe the editors are moved by a true spirit of scientific ardour, and we wish them every success in their undertaking. The great difficulty that we have experienced after twelve years of editorial work is the apathy which is shown by the profession in this country in recording their observations. Like the servant spoken of in the parable, the large majority of our professional brethren prefer to wrap their talent in a napkin and bury it, rather than put it out to gain other talents. Many a life is spent in the acquisition of knowledge, which is not gained by book lore, but by practical observation. Much of that observation is lost, as hardly a death vacancy occurs in our ranks without a positive loss to the whole brotherhood. Literature there is no lack of, but the vast amount of rubbish which is given to the world, is a mere drop in the ocean of unrecorded observations.

We cordially welcome *The Canadian Journal of Medical Science*, and cheerfully place it on our exchange list; and furthermore hope it may be a means of stimulating the profession of this country to well and truly represent Canada in the ranks of literature and science.

JOURNALS RETURNED.

We have received from the Dead Letter Office at Ottawa, quite recently, an official enclosure, consisting of the July and August numbers of the CANADA MEDICAL AND SURGICAL JONRNAL for the year 1874.

The wrappers had been removed, so that there was no means of teiling to whom they had been addressed. Some of our subscribers suffered the loss, which we are willing to supply, but as we do not possess the power of divination, are unable to tell who is the person that has been defrauded of his paper. We may state that there was no post-mark; the JOURNALS were simply enclosed in an official envelope and addresssd, "G. E. FENWICK, M.D., Box 386 P. O. Montreal," and in the corner there is the stamp returned for postage. There is also the Dead Letter Office stamp under date 20th October, 1875, and this precious parcel reached us early in December. Where these two numbers came from? who returned them? to whom were they originally addressed? and why they should take sixteen months in travelling from the Capitol of Canada to this city, a distance of about 120 miles, are questions we are unable to answer.

Patients' Notions of the Clinical Thermometer.

Hospital patients, as a rule, do not clearly understand why the Clinical Thermometer is so frequently introduced to their notice, and their ideas of a temperature chart are usually of the haziest. The following facts gleaned from the medical assistants of one of our Metropo-

litan Hospitals will prove this:—A young woman, who was convalescent, and whose temperature had long remained normal, had a slight relapse, which she attributed to having had "no glass under her arm for a week."—A man suffering from acute rheumatism, obstinately refused to have his temperature taken any more, saying, "it took too much out of him; it was a drawing all his strength away."—A man had been in the habit for some time of having his temperature taken daily under his tongue, with a thermometer that had just been doing severe duty in the axillae of other patients. One night a bran new thermometer was applied to his mouth, next day he declared he was not so well, and said "the glass was not so strong as usual; he felt at the time the taste was different, and it had not done him so much good." A sister in one of the women's wards says that many of the patients think the thermometers are used to detect breaches of the rule against having unauthorised edibles brought in by friends, and she accordingly, does not disabuse their minds of their innocent superstition.—*Students' Journal.*

We have been requested to give publicity to the following announcement, and we trust that Canada will not be behind other countries in sending representative men to attend this very important meeting:

AMERICAN CENTENNIAL CELEBRATION.

INTERNATIONAL MEDICAL CONGRESS.

The Medical Societies of Philadelphia, animated by a just spirit of patriotism, and an earnest desire to unite with their fellow-citizens in celebrating the Centennial Birthday of American Independence, have taken the initiatory steps for the formation of an International Medical Congress by the appointment of delegates from their respective bodies, who were empowered to organize and perfect a scheme for the above purpose. In accordance with the authority thus given the delegation has organized. The Centennial Medical Commission, with the following officers: President, Samuel D. Gross, M. D., LL. D., D. C. L. Oxon; Vice-Presidents, W. S. W. Ruschenberger, M. D., U. S. N.; Alfred Stille, M. D.; Recording Secretary, William B. Atkinson, M. D.; American Corresponding Secretaries

Daniel G. Brinton, M. D., William Goodell, M. D.; Foreign Corresponding Secretaries, Richard J. Dunglison, M. D.; R. M. Bertolet, M. D.; Treasurer, Casper Wister, M. D. Arrangements have been made for the holding of the Congress in the City of Philadelphia, to begin on the 4th and to terminate on the 9th of September, 1876. The Commission propose the following general plan for the organization and business of the Congress

I. The Congress shall consist of delegates, American and foreign, the former representing the American Medical Association and the State and Territorial Medical Societies of the Union; the latter the principal medical societies of other countries.

II. The officers shall consist of a President, ten Vice-Presidents, four Secretaries, a Treasurer and a Committee of Publication, to be elected by the Congress at its first session, on the report of a Committee of Nomination.

III. The morning session of Congress shall be devoted to general business and reading of discourses; the afternoons to the meetings of the Sections, of which there are nine, viz.:

1. Medicine, including pathology, pathological anatomy and therapeutics.
2. Biology, including anatomy, histology, physiology and microscopy.
3. Surgery.
4. Dermatology and syphilology.
5. Obstetrics and diseases of women and children, and
6. Chemistry, toxicology and Medical Jurisprudence.
7. Sanitary science, including hygiene and medical statistics.
8. Ophthalmology and Otology.
9. Mental diseases.

IV. The language of the Congress shall be the English, but not to the exclusion of any other language in which members may be able to express themselves more fluently.

Gentlemen intending to make communications upon scientific subjects will please notify the Commission at the earliest possible date, in order that places may be assigned them on the programme.

In order to impart to the Congress a thoroughly international character invitations to send delegates will be extended to all the prominent medical societies in Europe, Mexico, the British Dominions, Central and South America, the Sandwich Islands, the East and West Indies, Australia, China and Japan. Invitations will also be rendered to medical gentlemen of high scientific position; and distinguished visitors may be admitted to membership by a vote of the Congress.

Among the advantages arising from such a convocation as this, not the least important will be the opportunity afforded its members for the interchange of friendly greetings, the formation of new acquaintances and the renewal and cementing of old friendships.

The Centennial Medical Commission tender in advance to their brethren in all parts of the world a cordial welcome, and a generous hospitality during their sojourn in the "Centennial City."

The Congress will be formally opened at noon, on Monday, the fourth day of September, 1874.

The registration book will be open daily from Thursday, Aug. 31, *from* 10 *to* 3 *P. M., in the Hall of the College of Physicians, N.E. cor. of* 13*th and Locust Streets. Credentials must in every case be presented.*

Gentlemen attending the Congress can have their correspondence directed to the care of the College of Physicians of Philadelphia, N. E. corner of Locust and Thirteenth Sts., Philadelphia, Pennsylvania.

There is every reason to believe that there will be ample hotel accommodation for all strangers visiting Philadelphia in 1876. Further information may be obtained by addressing the Corresponding Secretaries.

All communications must be addressed to the appropriate Secretaries.

WILLIAM B. ATKINSON, 1400 Pine Street, Philadelphia, *Recording Secretary.*
DANIEL G. BRINTON, 2027 Arch Street, } *American Corresponding Secretaries.*
WM. GOODELL, 20th & Hamilton Sts. }
RICH. J. DUNGLISON, 814 N. 16th St. } *Foreign Corresponding Secretaries.*
R. M. BERTOLET, 113 S. Broad Street. }

PHILADELPHIA, October, 1875.

The following interesting table has been compiled by Mr. T. D. King, of this city, from records kept by the late Dean Bethune.

Year.	Maximum and Minimum New Year's Day.		Mean Temperature Christmas to New Year.	Time of forming Ice Bridge.
1839	4	15	8	December 27.
1840 *	0	13	15	January 14.
1841 *	5	7	7	January 9.
1842 *	7	9	16	December 25.
1843 *	3	6	10	
1844	27	17	24	January 1.
1845	38	32	23	December 13.
1846 *	12	3	18	
1847	28	18	14	January 19.
1848	44	32	19	January 20.
1849	24	10	23	January 4.
1850 *	25	3	11	January 4. and December 24.
1851 *	26	6	7	December 25.
1852	19	15	14	
1853	14	4	16	January 20.
1854	26	6	7	January 5.
1855	16	8	23	No record.
1856	20	18	8	January 7. and December 22,
1857	28	22	18	
1858	30	18	16	January 21.
1859	37	33	11	January 1. ‡ and December 28.
1860 *	-4	10	-8	†
1861	26	20	23	January 9.
1862	35	11	9	January 9.
1863	30	12	24	January 21.
1864	36	14	17	January 4.
1865 *	1	3	24	January 13.
1866	36	12	23	No record.
1867	22	7	18	January 12. and December 18.
1868	20	5	16	December 28.
1869 *	4	2	10	
1870	28	18	30	January 8.
1871	20	14	9	No record.
1872	31	23	10	No record.

‡ Thermometer registered this January 36° below zero.

† Extremely cold—13 days below zero between Christmas Day and Twelfth Night.

* Years marked thus, minimum temperatures on New Years day below zero.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

The Elastic Band in Tenotomy. Successful Case of Operation for Talipes Varus. By A. A. Henderson, M.D., C. M., Ottawa, Ontario.

A short time ago, I was sent for to see Willie T.—— a healthy, well developed child, aged twenty months, perfectly formed in every respect with the exception of deformity of the right foot. I was informed that an operation had been performed upon the foot eleven months previously, and that the usual kind of boot for such cases had been worn by him, but without any beneficial result.

Condition Previous to Operation.—Upon examining the foot I found the heel well depressed, the tendo Achillis having been divided at the previous operation. The inner margin of the foot, however, was drawn upwards and the anterior portion twisted inwards to such an extent that at any attempt to walk, the dorsum of the foot pressed upon the ground. I then examined the tendons with a view to operation and found that the tendon of the tibialis anticus was the cause of the deformity, and that in this case it could be divided most easily just above the ankle joint.

On Dec. 3rd 1875, assisted by Dr. Sweetland, I operated without chloroform. The foot was firmly held in position by Dr. Sweetland while I divided the tendon of the anterior tibial muscle above the ankle joint in the usual manner.

The puncture was covered with adhesive plaster, and the foot secured in position by means of a broad strip of plaster placed around it just behind the toes, having a smaller strip inserted so as to form a loop at the outer mar-

gin of the foot, just at the root of the small toe. Another broad band of plaster with a loop formed at its outer portion was placed around the leg above the knee.

These loops were then connected by an elastic band, composed of two pieces of rubber tubing, attached by means of a hook to the loop at the root of the small toe, and by means of a loop with tape attached to the plaster above the knee. The tape was found a great convenience as a means of regulating the amount of tension required from the rubber.

No boot was worn for fourteen days, and during that time the child was not allowed to walk. The sticking plaster was renewed from time to time as it became partially detached, and the tension of the rubber was carefully regulated. At the expiration of that time the child was allowed to walk, but instead of putting on a Scarpa's shoe, I selected a light boot such as is ususally worn by children, and still keeping the band of sticking plaster around the foot, I passed the loop out through an incision which I made at the outer margin of the boot, and hooked the elastic tubing into it. By this means the foot was prevented from turning in the boot. The other end of the elastic was secured to the back of a belt passed around the waist, and kept in position by passing through a keeper situated at the outer and posterior part of a band passed around the thigh. This enabled the child to walk without the possibility of displacing any of the fastenings, and exercised a proper amount of traction, and in the right direction. The child walked readily with the toes everted, and the sole of the foot placed properly upon the ground.

The result of the operation is very satisfactory, and although the elastic is still worn as a precaution, yet without it the position of the foot is quite normal, and its movements are such as they ought to be.

Remarks.—The advantages of the elastic band in the treatment of muscular contraction are marked, and its action in this particular case is very satisfactory. The age of the child necessitated a moderate amount of traction in order

to retain the foot in a proper position, and this was managed by using double tubing.

Having tape attached to one end of the rubber is a decided advantage, as by means of it the power exercised as a tractor can be perfectly controlled. The position of the foot treated by the elastic band can be kept more perfectly under control than can be done by a boot, as any amount of traction required can be obtained in any requisite direction.

The elastic must be worn until the cure is perfected, and apparently but little inconvenience is felt by the child, as the power of standing, walking, or even running seems to be but little interfered with by it.

Ottawa, Jan. 5th, 1876.

Notice of the recent Researches on the Pathology of Small-pox. By Wm. Osler, M.D., L.R.C.P., Lond., Professor of Institutes of Medicine, McGill University.

The laudable endeavours of Pathologists to obtain evidence of the presence of some of the lower forms of vegetable life in connection with the infectious diseases are being yearly rewarded. In Splenic fever of animals, in Diphtheria, Relapsing fever, Typhoid, and Erysipelas organisms have been discovered which are supposed to have a casual relationship to the diseases in question, though by opponents of the germ theory they are regarded as pathological results or accidental accompaniments.

Within the last eighteen months two investigators, one working at ovine, the other at human small-pox, have shown that this disease must be included in the list, since definite organisms occur in connection with it, and the following brief account of their investigations, chiefly in the author's own words, may be interesting to the readers of this Journal.

Dr. Klein (*Report of Med. Officer of Privy Council*), experimenting upon sheep, produced both a general and local eruption: in the one case by the injection of the virus into the veins, in the other by the inoculation of it under

the skin. The lymph used contained many transparent spheroidal bodies, arranged in groups or in necklace-like chains, together with Micrococci and ordinary rod-shaped Bacteria. On keeping the lymph for some time at incubation temperature (98° Fahr.) the transparent spheroidal bodies divided and sub-divided, producing chain-like aggregations, or long, smooth filaments; the product in either case bearing a striking resemblance to the dense net-work of filaments forming the mycelium of the common fungus.

Dr. Klein describes the process in the local eruption as beginning in the *rete mucosum* and papillary layer of the corium by an enlargement and germination of the cellular elements in these localities. Then the lymph spaces in the corium became dilated, more distinct, the lymphatic vessels originating from them being readily traced owing to their distension. About the third day, spheroidal bodies like Micrococci, and branched filaments made their appearance in the dilated lymph vessels of the corium, and in a few days the process had advanced to such a degree that almost all the lymphatics in the affected part were filled with a fungus-like growth, consisting of a dense felt-work, or mycelium, the undivided filaments of which broke up at the ends into conidia or spores. While this was going on a precisely similar growth took place in the cells or cavities which form in the *rete mucosum* at the time of vesiculation. The process attained its height before pustulation came on, and was identical in the pocks of the general eruption.

Dr. Weigert, of Breslau, working at the subject in man, describes first the appearances in the skin, and then in the internal organs (*Centralblatt, f. d. Med. Wiss. Feb.* 27,—*Dec.*, 1875). In the former situation Bacteria were always found in the neighbourhood of the pocks, sometimes directly under the central degenerated parts, occurring in sharply bounded tubes with an endothelial lining; but whether these were lymph or blood vessels could not be decided. In addition larger and smaller colonies, more diffusely arranged, were present. They were only found in the early stages before profuse suppuration came on.

In the internal organs, Liver, Spleen and Kidneys, the author describes small, sharply bounded, tubular structures filled with Bacteria, identical with those found in the skin. The cells in the neighborhood of these degenerate, their nuclei disappear, and small groups, about the size of miliary tubercles are formed. This is in the early stage of the disease. Suppuration takes place later with disappearance of the Bacteria.

Dr. Weigert is inclined to regard these as structures analagous to the pocks on the cuticle, and believes that for the first time proof is here offered in an acute exanthem of a process going on in the internal organs similar to that in the skin. As far as can be gathered from the account, the Bacteria correspond rather to the Micrococci occurring in Diphtheria than the rod-shaped forms of putrefaction.

The author is of opinion that the destructive effect of the Bacteria is due to some chemical action on the tissue causing necrosis of the cell elements, while inflammation with suppuration follows as a secondary effect.

The two accounts which we have here of the pathology of ovine and human small-pox (in their essence similar) are by no means concordant. In the one we have a remarkably full and clear description of the development of an organism going hand in hand with the development of the lesions characteristic of the disease, and it seems hard to believe that the relationship between the two is not that of cause and effect. In the other, human small-pox, the account is much less complete, and though tube like aggregations of Micrococci occur, like those described by Dr. Klein in the ovine disease, we have no record of the growth, development, and fructification of these bodies. Nevertheless these form most valuable contributions to our knowledge of the intimate Pathology of this disease, and Dr. Klein's research especially places the germ theory on a basis which heretofore it has not possessed.

The Antipyretic action of Salicylic Acid.

Dr. Fürbringer (*Centralblatt, f. d. Med. Wiss. No.* 18, 1875,) found that the administration of this remedy in health to guinea pigs and men caused no deviations in the temperature.

In septic fever, artificially produced in guinea pigs, salicylic acid caused a marked reduction in the temperature, the effect in most of the cases being evident in from 2–6 hours after the administration of the medicine. In inflammatory fever produced artificially in the same animals the results were not so striking, but the experiments were few in number.

Dr. Buss (*Centralblatt, No.* 18, 1875,) in a short notice strongly recommends salicylic acid for its antipyretic action, alone, and in combination with quinine ; and states that it possesses no unpleasant peculiarities, such as causing collapse, delirium, &c. He gives it in doses, according to the intensity of the fever, from 4–8 gms (3I–3II) at a time, and has so employed it with the best results in typhoid fever, erysipelas, and acute rheumatism.

Moeli (*Berl. klin. Wochenschr, quoted in Centralblatt, No.* 53, 1875,) states that the sodium salt of salicylic acid, which according to Kolbe's investigations does not possess antiseptic properties, acts in a remarkable manner as an antipyretic, both in infectious and inflammatory fevers.

4–5 gms is sufficient in light cases to produce a great reduction in the temperature ; in severer cases it is necessary in order to obtain a temperature reduction of 1. 5—3 ° C to repeat the dose in a few hours (4–16). The action is more intense if the remedy is taken at the time of the spontaneous temperature reduction. Commonly the antipyretic effect lasts 24 hours, and in about half the cases the fall in temperature is accompanied with copious sweatings. The author has never observed any evil consequences follow the administration.

Occasionally transitory vomiting came on, but no furthur gastric or intestinal troubles.

The medicament proved active also when given by the rectum in larger doses, less so of course than when administered by the mouth. A prompt effect was evident with subcutaneous injections, in spite of the inconveniently large quantities which had to be injected. Of six healthy persons who had each taken 4 gms in concentrated solution, three vomited, the rest remained wholly unaffected; likewise three others who had taken similar doses per anum.

Wolffberg (*Deutsch Arch. f. klin. Med. quoted in Centralblatt No.* 53, 1875) finds, from experiments in Ziemssens clinic, that in typhus the salicylic acid, taken in single doses of 4 gms, only exceptionally reduced the temperature; with 6 gms it did so as a rule, but only transitorily; while the continual use of 2 gms daily in watery solution had no effect whatever. From these results the author ventures to conclude that to salicylic acid only a slight and untrustworthy antipyretic action must be ascribed. The author advances a number of facts to show that the administration of salicylic acid in substance, either in powder or suspended in water is not, as Buss (see above) maintains, without risk. One patient to whom 2. 5 gms had been given in powder, so that it was with difficulty swallowed showed on the next day a hæmorrhagic Pharyngitis. The post mortem examination of two typhus patients who had taken the powders revealed numerous hæmorrhagic erosions in the mucous membrane of the stomach, which in one of the cases extended into the duodenum. Similar appearances were found in the bodies of three patients who died of phthisis, to whom, *experimenti causa*, in the last period of life salicylic acid in powder had been administered. A dog also to which 2 gms of salicylic acid enveloped in bread was given, and in addition an injection of 2 gms to 40 of water, had after death numerous hæmorrhagic ulcers in the stomach, duodenum, and rectum.

Choral-hydrate in Ozena.

A solution of chloral-hydrate in water in the proportion of 2 parts to 250, is highly recommended in Ozena. It is employed by irrigation.—*Pacific Med. and Sur. Journal.*

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Cirrhosis of Liver. Under DR. ROSS. Reported by MR. R. L. MACDONNELL.

P. M., æt. 61. Admitted Oct. 31, 1875, a very stout, plethoric individual. For last 3 months has had swollen feet, cough, dyspnœa, and brickdust deposit in urine. A month ago had ascites, which was soon followed by icteroid discolouration of skin and conjunctiva. Within the last two or three days has had hœmatemesis, and last night was delirious. Bowels have been rather loose and urine scanty.

Family history excellent. Has never had syphilis. Has been a very hard drinker for last five years.

Dull and stupid manner, voice thick; not at all inclined to answer questions or impart information. Skin and conjunctiva moderately jaundiced. Respiration hurried and difficult, little cough or expectoration. Moist rales over the right lung and base of left, dulness at both bases.

Pulse 124, moderately full and very compressible. Heart healthy; tongue moist and brown; no appetite; frequent hæmatemesis, but not involving much loss of blood. Bowels loose, fæces greenish and watery, lower extremities œdematous. Abdomen much enlarged. Fluctuation well marked from side to side. When supine position assumed clear percussion in umbilical and hypogastric regions. Dulness varies with position, superficial abdominal veins enlarged. Passes urine and fæces involuntarily. Urine is scanty in amount, of a dark colour, acid reaction, sp. gr. 1020, and deposits very little sediment at all, contains no albumen, blood or bile pigment.

Ordered. ℞ Inus. Digitalis ℥ii every 4 hours.

Nov. 1st. Delirious last night. Breathing becoming stertorous. Frequent vomiting of blood. Pupils contracted.

Involuntary passages of urine and fæces. Pulse 120, weak and compressible. Ordered Pulv. Jalapae Co ʒi statim.

Nov. 2nd. Died at 4 A.M.

Autopsy. Eight hours after death. Heart and pericardium healthy. Pleuræ adherent at many points. Right lung intensely congested except at upper lobe. Left lung congested at lower lobe. Mucous membrane of stomach reddish and congested. Abdomen contained five quarts of ascitic fluid. *Liver* capsule opaque, closely adherent. Surface light yellow in colour, covered with small protuberances of different size. Organ itself hard, tough, and leathery, much reduced in size and weight (2 lbs. 10 oz.) Gall bladder partially filled with greenish bile. Spleen enlarged and congested (weight 14 oz.) Kidneys, slightly congested. Capsule non-adherent. Surface mottled with minute echymoses. One or two small cysts.

Case of Cirrhosis of Liver.—Under Dr. Ross. Reported by Mr. R. L. MacDonald.

Jacques Archer, æt 42; admitted October 28th, 1875, a painter.

Has never been ill until about a month ago, when he noticed slight puffiness about the ankles, followed immediately by progressive enlargement of the abdomen. About twelve days ago the urine became scanty and of a bright red colour, with a large deposit of lithates and lithic acid. Four days ago had a slight attack of hæmatemesis. Has never suffered any pain. Now and then has had a little bleeding at the nose. Coughed a good deal before admission. Bowels have been irregular. Had gonorrhœa and syphilis about twenty years ago, not followed by evil consequences. Family history excellent. Though he strenuously denies it, he has probably been a very intemperate man.

Present Condition.—Skin dark but not jaundiced. Pulse 92, small compressible; cough trifling. Expectoration

small in quantity, mucous. No dyspnœa. Lungs healthy. Heart quiet. Cardiac dullness normal. Systolic murmur rough in character, loudest at base and prolonged up the aorta. Pulsation at wrist barely visible. Tongue clean. Appetite fair. No nausea or vomiting. Bowels rather confined. Abdomen immensely distended. Superficial abdominal veins prominent. The swelling fluctuates, bulges at sides, and is dull on percussion, except at upper part, where a tympanitic note can be elicited. This area of clearness changes its site with the patient's position. Hepatic dulness normal. Spleen not perceptibly enlarged. Urine scanty, bright red with a large deposit of lithates, acid in reaction. No blood. No albumen. No bile pigment. Sp. Gr. 1020.

Ordered pulv. Jalapæ Co. ℈i statim.

Oct. 30*th.*—Has been thoroughly purged by the Jalap. Abdomen more lax; more comfortable. Amount of urine passed in 24 hours, 24 oz.

Ordered: Infus. Digitalis ℈ii ter in die. Also 4 oz. Claret.

Oct. 31*st.* Tongue moist and slightly coated. Bowels confined. Urine 16 oz.

Nov. 3*rd.* — Ordered: R. Potassæ Ascetatis ℈iv; Tr. Scillae ℈vi; Infus. Digitalis ad ℥vi; ℥ ss ter in die.

Nov. 4*th*—Bowels loose. Urine 16 oz. Deposit considerably diminished.

Nov. 5*th*—Urine 27 ounces.

Nov. 7*th*—Two friends of the patient came to see him in the afternoon, and brought him two pint bottles of claret. He hid them in his bed, and at about 10 p.m. drank about a bottle and a half. He became extremely drunk, went out to the watercloset, and on his way back to bed was attacked with profuse hæmatemisis. He died a few minutes afterwards.

Post Mortem.—Twelve hours after death. Cadaveric rigidity extreme. Face livid. Conjunctivae injected. Nose flattened from previous fall. Membranes of brain congested. Small quantity of subarachnoid effusion. Brain normal.

Pleurae slightly adherent above and below. No effusion. Lungs moderately congested, particularly at right base. Crepitant throughout. Pieces from all parts floated in water. Red, frothy serum exuded from cut surfaces. Pericardium contained a few drachms of fluid. Heart flaccid. Auricles full of dark coajulated blood. Left ventricle hypertrophied and a little dilated. Mitral valve slightly incompetent, and thickened. Aortic valves healthy. A flattened plate of calcareous matter, as large as a five cent piece, attached to inner surface of aorta, immediately above one of the semilunar valves ; similar calcareous plates along the thoracic aorta. One, particularly large, at origin of the subclavian artery. Abdomen ascitic, the fluid measuring eight quarts. Peritoneum pinkish and congested. Long strings of lymph floated free in the fluid. LIVER (weight $4\frac{1}{2}$ lbs). Capsule thickened and whitish, adherent to diaphragm and adjacent viscera ; vessels of broad ligament enlarged and gorged with blood, one vein being particularly prominent. Surface of the gland of a moderately dark brown colour, studded with hard protuberances which combined to give it a puckered appearance. Hepatic substance on section hard and tough, shining white lines of connective tissue between irregular masses of dark brown lobules. The surface of a section altogether reminds one somewhat of the appearance of a slice of dark-coloured castile soap.

SPLEEN (7 oz.)—Capsule extremely thickened, with large white indurated patches. Substance congested. Omentum gathered together into finger-like lobules, binding the liver, stomach, spleen and pancreas into one mass, rendering it a difficult matter to separate one organ from another. STOMACH empty, contracted. No sign of congestion or inflammation except at cardiac orifice, where there was rather deep capillary congestion. Intestines healthy. Appendix vermiformis unusually long. Kidneys (6 oz. each). Capsule non-adherent. Surface smooth. Deep red on section, congested. Pyramids widely separated. Left kidney of an unusual triangular shape.

Case of Fracture of the bodies of the 4th and 5th dorsal Vertebrae—Complete paraplegia — Recovery. Under Dr. Ross. Reported by Mr. C. N. Stevenson.

Louise L. aged 17, housemaid, was admitted into the Montreal General Hospital on 28th Sept. 1875, with loss of power in the legs, the result of a fall. It appears that on the 26th Sept. she was engaged washing windows in the second story of a house looking out upon a garden, when the ladder on which she stood gave way and she was precipitated to the ground. She thinks she was not stunned or rendered unconscious, and insists that she fell face downwards, striking violently upon something directly across the pit of her stomach. She tried to rise but could not and had to be lifted and carried into the house—She was very shortly after seen by a neighboring physician who found her completely paraplegic, the bladder also being involved. He had fly-blisters applied on the spine and to the backs of the legs.

On admission, there was complete loss of sensation and motion in both legs—there was also paralysis of the bladder and consequent retention, which had already necessitated the employment of the catheter. On examination of the vertebral column, very decided prominence was to be observed opposite the situation of the 4th and 5th dorsal vertebræ. Pressure in this situation was found to be exceedingly painful, causing at the same time sensations as of pins and needles running through the body in different directions. She has large blistered surfaces down the back and on the calves of the legs. These sores were dressed with zinc ointment—she was ordered an air bed, and to be cathetered twice daily.

Sept. 30th—Rested badly. Suffers a good deal of pain in the back. Pulse 125.

Oct. 3rd—Has had no movement of the bowels, still requires daily catheterization. Pulse 108. Ordered an enema.

Oct. 6th.—In spite of the air-bed, a slight bedsore is forming on the left nates. It was dressed with soap plasters. Pulse 108.

Oct. 10th.—Pulse 108. Temp. 100 5 a.m., 100 5 p.m.

Oct. 11th.—Early this morning had a rather severe rigor. Temp. 102 3-5 a.m., 100 4-5 p.m. Pulse 130. Rather more pain over seat of fracture. Ordered Emp. Bellad. to the back.

Oct. 12th.—Pulse 106. Temp. 99 1-5 a.m. 100 p.m. Has some incontinence, urine escaping involuntarily in bed.

Oct. 16th.—Pulse 88. Temp. 98 2-5. Has regained power over bladder and passes water voluntarily. Has also begun to regain some degree of power in her limbs.

Oct. 18th.—Improving. Is now able to turn over herself on either side—can move the toes and slightly raise either leg from the bed. Has more power in the left leg than the right.

Oct. 20th.—Urine passed easily and voluntarily. Bowels moved naturally without assistance. The bedsore and all the blistered surfaces are quite healed.

Oct. 25th.—Rapidly regaining power in the limbs. Was allowed to sit up in a chair for a short time to-day. Was ordered Pil. Rhei Co iij.

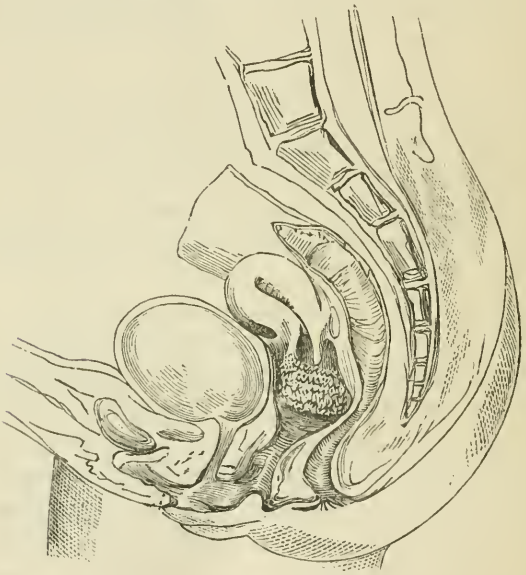
From this time improvement was steady and continuous in every respect, and by the *20th Nov.* she was able to stand and walk with slight assistance. Rapid advancement followed this and she was soon able to walk firmly without assistance and feels perfectly well. The vertebral prominence is as distinct as it was at first but free from all tenderness and quite consolidated. The deformity gives an odd appearance as though the shoulders were unnaturally square and the head somewhat sunk between the shoulders—was discharged cured 24th December.

Case of Papillomatous Tumour of the Cervix Uteri, Removed by Galvanic Ecraseur. By Dr. Fenwick. Reported by J. D. Cline, B.A., M.D., Assistant House Surgeon, Montreal General Hospital.

A. S., aged 28, married, by occupation a laundress, tall, stout, well-developed woman, was admitted into hospital on

Dec. 20th, 1875. Had always been strong. Never knew what it was to be sick. Had one child four years ago, and never been pregnant since. Had always been regular in menstruation until two months ago when she became unwell and remained so ever since. Hæmorrhage had been so great lately that she felt herself getting weak, and was subject to fits of giddiness. She had never suffered any pain till lately ; she had pain in her back and down her thighs.

On examination with the finger immediately felt a mass as large as a hen's egg, flat in surface, which was rough and



rugged, growing from the anterior lip of the cervix, its attachment being broad and sessile, the whole lip being much enlarged and thickened. The posterior lip and os uteri could be felt behind the growth by tilting it forward. The examination caused no pain. Upon introducing Sim's Speculum the growth was brought into view. The surface of it was covered with a bloody and slimy discharge, the removal of which disclosed a rough, ragged-looking surface

not so from ulceration but from enlarged papillae. The tumour lay somewhat obliquely across the bottom of the vagina, completely hiding from view the os and posterior lip.

Dr Fenwick judged from its appearance, the age of the patient and her general condition, that it was not malignant, but a benign papillary growth, and decided to remove it. This he did by the galvanic Ecraseur. Passing the loop of platinum wire around the tumour as high up as possible, he connected it with the electric conductors of a four-celled battery. The tumour came away in about two minutes, leaving a smooth, charred stump, without a drop of blood. The sides of the vagina were a little burnt, by the heat of the canulla through which the wire passed. This on another occasion could be avoided by winding silk around the canula. The patient had no bad symptoms after the operation. Now, at the end of three weeks, the sloughs have separated and the stump is rapidly healing. The discharge is very slight. It was rather offensive for a time for which injections of Condy's Fluid were used. The tumour was examined by Dr. Osler who pronounced it to be not malignant but to consist of hypertrophied papillæ, connective tissue and blood vessels.

Fracture of the Ulna, with dislocation forward of head of Radius.

W. S., aged 22, was driving a butcher's cart, when the horse ran away and he was pitched out against a hydrant, the fore arm, which was flexed, striking the hydrant near the elbow. When brought to the hospital we found a fracture of the ulna, about two inches from the point of the olecranon, and a prominence in front of the point on the radial side. The patient could not flex the forearm. The head of the radius was readily returned to its proper position and retained there as long as the arm was well flexed. A posterior splint of gutta percha was applied, bent at an angle of about 50°, and a straight anterior splint was ap-

plied to the forearm. The hand was kept to the opposite shoulder by a triangular sling, and the whole arm steadied by a broad bandage. The patient was found to be syphilitic. He had a large serpginous sore on left leg, and another on the fractured arm, and sores of the same character on his head, and nodes on both tibiæ. He had contracted the primary sore four years ago, and eight months afterwards secondary eruptions and sore throat, with nocturnal pains in his bones. Proto-Iodide of Mercury Mixture was ordered for this syphilitic affection. In three weeks the splints were removed altogether, when tolerably firm union was found at the seat of the fracture. Passive motion was used, and in another week the motion of the joint was very good. He was now discharged with instructions to use the arm and apply friction. The syphilitic sores were by this time almost healed.

Case of Peritonitis. Calcareous concretion found in Appendix Vermiformis with perforation of it.

W. S., aged 22, an ostler by occupation, was admitted into hospital on the evening of Tuesday, January 18th. He was a thin, spare man ; had been in the habit of 'getting on sprees' frequently. On Saturday had had a chill, having been perfectly well before this. The chill was followed by a good deal of fever, pain in head, back, and thighs, and sickness at stomach. He had also complained of pain across lower part of abdomen, not well defined. On examining him after admission, found his tongue a good deal coated ; pulse, 104° ; temp. 104 2-5°. A good deal of tenderness in right illiac fossa, where no swelling was detected. Ordered a draught of Liq. Morph., and a linseed poultice over abdomen.

Jan. 19.—This morning found him very uneasy with pain in the region of bladder and extending down into testicles, and a great tenderness in same region, and frequent desire to micturate, but passing small quantities of urine, which

was very dark and with no dsposit. Pulse 96, and soft; temperature 101°. Poultice to be continued, and the draught if necessary Towards night the pain and tender ness was becoming excessive, and he vomited several times. The symptoms of general Peritonitis were now evident. I stopped the mixture, and ordered pulv. opii. gr. i. every three hours, and gave him at the time a hypodermic injection of gr. ¼ of Morphia. Evening temperature was 102°; pulse 120, short and sharp.

20th.—Morning temperature 101°; pulse, 130, very wiry; expression of countenance very anxious; cold sweat on his forehead; vomiting worse, vomited matter being yellowish green. Tenderness of abdomen very great, and abdominal walls very hard; could scarcely bear the weight of poultice. I now gave him instead of opium, by mouth, Morphia gr ¼, hypodermically every two hours; ordered a sinapism to epigastrium, and ice by mouth with milk, which had been his only diet throughout, in small quantities frequently.

At 1 p.m., Dr. Fenwick saw him, and ordered champagne by mouth, but made no further change in the treatment. His arms were now cold up to the elbow. The champagne he sometimes retained, and sometimes rejected. Towards night I gave him Sod. Bicarb. grs. 5, and Acid Hydrocyanic dil mij every two hours, and continued the morphia injections every 2 hours. Temperature this evening 99 2-5°; pulse 140.

21st.—Towards morning he vomited very little and slept some. Temp. 198 2-5°; pulse 140. His pupils, notwithstanding all the morphia he had taken, were not very much contracted. Through the day he became at times slightly delirious and would attempt to get out of bed, but was easily quieted. At 5 p.m., just after I had left the ward, he suddenly became furiously delirious, could scarcely be held. Snapped at my hand with his teeth. At the same time his pulse became almost imperceptible and his pupils widely dilated. After a furious paroxysm of about two minutes, he sank back and died at 6 p.m.

Autopsy 36 hours after death. Found a quantity of purulent fluid in the cavity of the peritoneum, and signs of inflammation of this membrane all over it, particulary in the neighborhood of right illiac fossa, where the intestines were covered with a very thick layer of fibrinous exudation. appendix vermiformis was adherent to the wall of abdomen, where there were the remains of a small abscess. On detaching the appendix found a sloughy perforating ulcer about the middle of it, and the lower half black and gangrenous. Just above the ulcer could feel a hard mass about the size of a bean. This mass when examined was found to consist of layers of what appeared to be hard fæcal matter, with a hard, gritty nucleus about as large as a split pea, which effervessed on the application of an acid. There was great venous conjestion of the membranes of the brain, which itself appeared normal.

Correspondence.

Sherbrooke, Jan. 22nd, 1876.

To the Editor of the Canada Medical and Surgical Journal.

Sir,—I send you for insertion in the Journal the following paragraph from a letter written by a Medical Practitioner in the Eastern Townships, and published over his signature, in the columns of a local newspaper of large circulation. Being so published I think I am right in regarding the suggestion it embodies as professional property.

"Within a short time it has, I find, been industriously rumored that at the time of the accident which caused his death, Mr. C. was intoxicated. Now, I can most positively assert this is not the case; I was the first medical man who saw him and dressed his wounds, and in order to convince myself of the nature of the injury the brain had evidently received, I carefully examined (twice) the patient's breath, and though I am glad to say my sense of smell is patricularly acute, I was unable to detect the slightest trace of alcoholic flavor."

I have heard of "smelling a mice," but I never heard of

any of the great Fathers of Medicine, suggesting the *examination of the breath*, in order to ascertain the *nature* of an *evident injury of the brain!* It was reserved as the crowning glory of the last days of 1875 to promulgate, thus modestly, this inestimable discovery.

The idea is an original one, and deserves to be "*carefully examined* (*twice*)!" Of course a particularly acute sense of smell is indispensible; to ascertain the exact nature of the brain injury, and to distinguish between it—and alcoholic "*flavor!*"

I am, &c.,

E. D. WORTHINGTON.

Reviews and Notices of Books.

A Practical Treatise on Fractures and Dislocations. By FRANK HASTINGS HAMILTON, A.M., M.D., LL.D., Surgeon to the Bellevue Hospital, New York, Consulting Surgeon to the Hospital for ruptured and cripples, &c., &c. Fifth edition, revised and improved; illustrated with three hundred and forty-four wood cuts; 8 vo. pp. 831. Philadelphia, Henry C. Lea, 1875.

This treatise first saw light in 1860, and since that period has deservedly occupied a prominent position as an athority on the subject of Fractures and Dislocations. It is undoubtedly the most reliable treatise on this subject in our language. Throughout it will be seen that the author has been a careful and painstaking observer, a faithful and conscientious seeker after truth, The record he publishes is an accurate and unvarnished tale. In keeping before the professional world this very excellent treatise, the author has been no idler, the subject has been to him one of more than ordinary interest, and from what he has produced we judge that much time has been devoted to the subject. It is no mere book compilation, while the author gracefully gives to

others their proper share of recognition, he at the same time records the observations he has himself made both in hospital and private practice.

The present edition has been considerably enlarged and has received an addition of twenty two illustrations on wood. The author has brought the work down to the present time, embodying many observations of practical surgeons, both European and American. In his report the subject of the diagnosis and treatment of fractures and dislocations has received some modifications. Dr. Hamilton very properly remarks that "there remains much to be accomplished, so much indeed, that no one who thoroughly understands the facts, and feels an interest in this branch of our science, will rest satisfied with what has been done, and hereafter cease to labor." Indeed the perfection in aparatus for the treatment of fractured bones has not been fully attained, nor is it attainable, although mechanical skill has done much to the imprrovement of aparatus for these lesion.

To the practical surgeon this work is an indisputable necessity, its teaching is reliable, and the style plain, clear and very readable.

The Histology and Histochemistry of Man. By HEINRICH FREY. Translated from the fourth German edition by ARTHUR E. J. BARKER of Dublin. With 608 illustrations. 8vo., pp. 683. Appleton & Co., New York.

This is another of the many valuable translations of German medico-scientific works that have within the last five years issued from the English and American press. The author, Prof. Frey of Zurich, is well and widely known as an able and original investigator in Histology, and for some years past German students have had the advantage of two excellent manuals from his pen. One of these, "The Microscope," also translated into English, is a com-

plete hand-book of microscopic manipulation, entering fully into all the modern methods which have aided so much in the advancement of the science, and is moreover copiously illustrated. The other, the subject of the present notice, deals only with the chemical and histological elements of the body and the structure of the compound tissues, giving an exhaustive account of each, without touching upon the details of preparation.

The work opens with a short history of the origin and progress of microscopical science, containing useful references to the chief investigators and their works.

The consideration of the elements of composition is first taken up, a description of the members of the different groups being given in order. This part of the volume will be specially welcome to English students, as it contains a short plain account of the various organic chemical compounds, accompanied, where needed, by excellent figures.

There is nothing calling for particular comment in this section; the views given are those current among physiological chemists, and the author has wisely refrained from recording any but the essential facts relating to the subject.

By far the largest portion of the book is occupied with an account of the elements of structure and of the tissues of the body.

A description, one of the best we have ever read, is first given of the cell, its modifications, characteristics, and methods of increase.

The subject of the blood receives the consideration that its importance demands, and is treated physiologically as well as histologically, the process of coagulation being fully described, and an excellent account of the development of the corpuscles given.

The tissues of the body are then taken up in order, full justice being done to each. The explanations are clear, the figures abundant and very well executed. The section relating to the structure of striped muscular fibre contains references to the numerous recent theories, and the illus-

trations are remarkably good. We are glad to see that, with very slight modifications, the views of Mr. Bowman are adopted.

The organs of the body are considered last, and dealt with in the same admirable manner. The kidneys receive particular attention, and this portion of the work is profusely illustrated.

With reference to the wood cuts we may remark that there is a great deal of needless repetition. Many of them occur two or three times, and in the description of the lymphatic glands we actually have within eight pages four duplicate figures, two of which face each other.

The work as it stands is the best text-book of Histology we now possess, and one we can cordially recommend to those wishing to acquire a thorough knowledge of the science.

Periscopic Department.

SURGERY.

The Sequel to a Case of Excision of the Two Principal Joints of the Upper Extremity. By WILLIAM MACCORMAC, F.R.C.S., Surgeon to St. Thomas's Hospital.

In the *Medico-Chirurgical Transactions* for 1872, vol. 55, will be found some particulars of, I believe, an unique case, in which, during the war of 1870-71, I performed resection of the shoulder and elbow-joints in the same arm. The patient, a man called St. Aubin, was one of the corps Chasseurs d'Afrique, the third regiment of which took an active part in the battle of Sedan, under the command of the Marquis de Galliffet. St. Aubin was shot both through the shoulder and elbow of the right arm, as well as receiving a bayonet-thrust in the face. I performed secondary resection of the injured joints twelve days afterwards, removing a large quantity of bone. Eighteen months sub-

sequently, I was able to describe to the Society the then condition of the limb in the following words. "The elbow is thoroughly healed, and the ulna so far reproduced that there is scarcely any appreciable deformity or loss of shape in the joint. He can flex and extend it, and also pronate and supinate the forearm. The power of the hand is being rapidly and completely regained," The shoulder was not, however, in so satisfactory a condition, as the upper part of the humerus had become necrosed. St. Aubin wrote to me from time to time, and told me it was proposed to remove the dead bone, but he wished me to perform the operation, I therefore invited him to come over and be a patient in St. Thomas's Hospital, which he did. When, however, I arranged to extract the sequestrum, he alleged violent home sickness, and returned abruptly to France—taking, in fact, French leave of us. At the end of the communication. already quoted from, will be found the following sentence. "I can entertain no doubt that, as soon as the necrosed piece of humerus is removed,the sinus in the region of the shoulder will close, and the usefulness and power of the limb become greatly increased." This forecast has recently received a gratifying realisation, as shown in the accompanying translation of a letter on the subject, which M. Serazin, under whose able care the man has lately been, has very kindly sent me.*

"I wish to complete, in a few words, the case of St. Aubin, related in your *Recollections of an Ambulance Surgeon*, translated by Morache. This man was sent to me to Bourges some weeks ago by my friend General the Marquis de Galliffett. I found, in the upper third of the arm, at the outer border of the biceps, a fistulous opening leading to a cloaca, whence flowed an abundant and fœtid suppuration, kept up by a sequestrum. This sequestrum appeared immovable; but, considering the nature and duration of the lesion, it was evident this immobility was

* St. Aubin wrote me at the same time to express his gratitude in a hand writing which excited my envy, saying, he was returning home the following day, a cured man, and promising to send me his news every New Year's morning.

only apparent. The lower part of the arm was red and swollen. I made an incision of 8 *centimètres* (3¼ inches) along the outer border of the biceps, which allowed a trephine to be applied twice to the surface bone below the cloaca, and when the window thus formed was trimmed with the gouge, a sequestrum 11 *centimètres* long (4½ in.) was withdrawn. It formed an osseous tube, bevelled obliquely at both extremities, rough on its surface, perforated in places, and formed of the internal layers of the compact tissue of the shaft. A glance suffices to show that the sequestrum is the result of a suppurative myelitis, which has probably caused the death of the inner layer of the diaphysis throughout the greater part of its length; for, as St. Aubin says himself, a sequestrum quite similar in appearance, having the form and dimensions of a *pipe Belge*, was extracted some months before at Bourbon Lancy, and this presented, at its upper extremity, the traces of having been cut with a saw. The result of my operation has been most satisfactory. At present, the suppuration is insignificant and free from odour. I believe that this courageous fellow is for the future free from any chance of surgical interference; and he preserves, thanks to you, a very useful *(forte utile)* arm.—SAZARIN, Ex-Professeur Agrégé de la Faculté de Strasbourg, Médecin en Chef du Huitième Corps.—Bourges, Dec. 11th, 1875."

I need only, in conclusion to this very interesting communication, echo the belief of Professor Sazarin, and express my sincere hope that this really brave fellow will, for the remainder of his life, enjoy, as he well deserves, the advantages of a useful limb.—*British Medical Journal.*

Ovarian Tumour; Tapping; Inflammation of the Cyst; Ovariotomy; Rapid Recover. (Under the care of Mr. JOHN CLAY.) QUEEN'S HOSPITAL, BIRMINGHAM.

The following case, for the notes of which we are indebted to Mr. J. Spofforth, resident obstetric assistant, is interesting as illustrating—first, the liability of the occur-

rence of inflammation of the cyst after the operation of tapping; and, secondly, the comparative safety of ovariotomy after the supervention of inflammation. It must, however, be borne in mind that this case, and others like it, are exceptional, and must be regarded as such—that is to say, the fact that inflammation may occur after tapping is not an indication that the major operation of ovariotomy should in such cases be practiced in the first instance.

A. S——, aged fifty-two, widow, was admitted on Nov. 9th, 1875. The patient always enjoyed good health until the present illness. She has had three children, the youngest nineteen years of age, and no miscarriages. Menstruation was regular till two years ago, when it ceased. About eighteen months before admission, while in the enjoyment of perfect health, she perceived a small movable substance in the right iliac region. This swelling, however, she said, disappeared. In February, 1875, she had a somewhat sudden attack of severe pain in the right side of the abdomen, for which she obtained medical advice. After this the abdomen rapidly enlarged, and an ovarian tumour was diagnosed. In August this tumour was tapped by her medical attendant, and a pailful of clear, gelatinous fluid withdrawn. Towards the end of October, the abdomen had become as large as when tapped, and she applied for admission into the hospital.

When admitted she was emaciated, the face was pinched and of an anxious expression; she complained of anorexia and nausea, difficulty of breathing, a constant cough, and œdema of the lower extremities. The abdomen was enormously distended, the superficial veins enlarged, the surface smooth and uniform, and there was tenderness on pressure in two or three spots. There was dullness on percussion in front, and resonance in the flanks, with distinct fluctuation. The fluctuation could be felt within a number or limited areas only, which showed the cyst to be compound.

The abdomen measured at the umbilicus 41½ inches, and two inches above this 40½ inches in circumference; from

the umbilicus to the ensiform cartilage 8½ inches, to pubes 11 inches, to right anterior superior spine 12½ inches, to left anterior superior spine 13 inches. Urine was healthy, sp. gr. 1030.

A vaginal examination proved the uterus to be of its natural size. slightly drawn upwards, and anteflexed. Temperature of body normal.

On Nov. 17th she was again tapped, and 160 ounces of straw-colored gelatinous and alkaline fluid of sp. gr. 1021, removed. Subsequently the chest symptoms were much relieved, and the œdema of the legs disappeared, but she complained of an acute pain in the right iliac region, and of great tenderness on pressure. The abdomen again became distended to about the same size as on the 17th, before she was tapped, The pulse became more frequent, and the temperature increased.

Suspecting inflammation of the cyst, Mr. Clay deemed it advisable to remove the tumour as soon as practicable, and on Nov. 27th the operation was performed. Ether having been administered, an incision was made five inches in length, below the umbilicus, in the median line. There was considerable hæmorrhage from some superficial veins, but it was arrested before the peritoneum was opened. The walls of the cyst were very thin, and gave way under the traction made by the hooks of Wells's trocar. The patient was then turned on her side, and the fluid evacuated by pressure on the abdomen. After securing the slight adhesions that existed on the right side and in front, the pedicle, about four inches in length came into view, was fixed with a clamp, and cut. A large cyst remained, which gave way whilst being withdrawn with the vulsellum forceps, and its contents, about 18 oz. of purulent fluid, escaped, but fortunately, owing to the patient being on her side, none was allowed to enter the peritoneal cavity. The tumour was then freed from the remaining adhesions, and easily withdrawn. The tumour proceeded from the right ovary.

The wound having been closed with deep and super-

ficial sutures of silk and wire respectively, the patient was removed to bed. Reaction was slowly established, and she was several hours before she recovered from the effects of the ether. The pain, occasionally, very severe, was soon relieved by morphia administered hypodermically.

It is not necessary to record the daily progress of the case. The temperature only on two occasions exceeded 100° F., and the pulse averaged about 90 per minute. There was cystitis and incontinence of urine, so that, in spite of every precaution, a small bedsore formed over the sacrum on the tenth day, but as the patient was able to lie on her side, it gave but little trouble. She was well enough to sit up on the fourteenth day, although it was deemed advisable to delay doing so till the seventeenth.

The cyst weighed 2 lb. 17½ oz., and the fluid contents which during the operation had been evacuated measured 250 oz. It was multilocular, consisting of two large cysts, with a dense mass of smaller ones. The largest cyst contained a quantity of purulent fetid fluid, with flakes of lymph of a dirty yellow color; its wall was thin, injected, very lacerable, with several hæmorrhagic patches on its surface.—*The Lancet.*

MEDICINE.

On Professional Muscular Atrophy. By Dr. E. Onimus, Laureate of the Paris Academy of Sciences, member of the Paris Society of Biology, etc.

Activity of muscles determines the development and energy of muscular fibres, and the general law is that the more a muscle works the larger and the more powerful it gets. This law, however, has its limits, and I have just observed a certain number of cases in which the exaggerated work of certain muscular groups, far from producing hypertrophy, induces, on the contrary, a condition of considerable atrophy.

These cases are observed only in individuals who, through

the nature of their trade or work, are obliged to contract the same muscles constantly. Through excess of activity, irritations of the muscular fibres supervenes. Thus, in a man employed in a draper's establishment, and whose business was to replace the unfolded goods on their shelves, their supervened, little by little, a most remarkable atrophy of the deltoid muscles of both sides. And, indeed, it was these muscles which were constantly actively employed in performing this special work.

In a workman emyloyed in a tannery, who was every day for eleven hours at work, and always felt aching and fatigue after his day's labour, there likewise supervened marked muscular atrophy, confined to certain muscles. In order to prepare the skins, he was to perform with both arms a forward and baekward movement, which necessitated especially the action of the muscles of the shoulder, so that these were the first to be affected, and are at present almost completely atrophied. The wasting away is almost the same in both arms, as both were in action during the man's work, whereas, in respect to the legs, the right one alone was obliged to support the whole weight of the body. Consequently, with the lower limbs, the right leg is the only one that has wasted ; it is one-half smaller than the other, and the affected muscles are those the action of which was the most constant, such as the rectus femoris, vastus externus, and vastus internus.

In the beginning, the patients complain especially of prostration, of weakness even in the morning on getting out of bed. They feel—particularly at the outset of the disease—intense, darting, intermittent pains. Before atrophy is well-marked there always exists more or less temporary contraction of the muscles.

When wasting has once begun, it follows a most rapid course if the patient continues to fatigue his muscles.

Almost always this affection is mistaken for progressive muscular atrophy, but it difiers from it in its course and in a great many symptoms. 1st. The muscles which are the

first to be affected are generally the largest ones, and particularly those in the neighbourhood of the shoulder-joint. 2nd. The pain and cramps at the outset are also a distinctive sign. 3rd. These cases of wasting amend rather rapidly under the influence of rest and the use of constant and continuous electric currents.

Recently I observed one case which it was not difficult to differenitate from progresssive muscular atrophy, as the atrophied muscles were the same as those which are the first affected in this latter affection. They were the muscles of the thenar eminence, and chiefly the adductor pollicis. The patient was an enameller, who had to hold an object all day between his thumb and index-finger. He first got cramps in the thumb, which suggested the idea of scrivener's palsy, then tremor of the thumb, on account of the fibrillar contractions, and, lastly, atrophy. Under the influence of treatment there was a rapid amendment, which showed that the case was really one of professional muscular atrophy, and not commencing progressive muscular atrophy.—*The Lancet.*

On Gelseminum Sempervirens. By SYDNEY RINGER, M.D., Professor of Therapeutics at University College; and WM. MURRELL, L.R.C.P., M.R.C.S., Demonstrator of Physiology at University College.

This powerful drug has long been employed in America, and a few years ago was introduced into this country as a remedy for neuralgia by Dr. Wickham Legg. His statements have been amply verified by Dr. Sawyer, Dr. Mackey, Dr. Spencer Thompson, and others. It is said to be especially useful in non-inflammatory toothache and in neuralgia in the nerves supplying the teeth and the alveolar processes of the jaw. In large doses it produces general paralysis. Several cases of poisoning are recorded, some ending fatally.

We extract from the Proceedings of the American Pharmaceutical Association (vol. xxi., 1873) the following ac-

count of the effects resulting from a toxic dose:—"The symptoms by which its effects manifest themselves in the animal economy seem to indicate that its energy is primarily exerted on the cerebro-spinal centres, and secondarily on the respiratory apparatus and the heart, the functions of the former ceasing before those of the latter. The motor nerves of the eye are attacked first; objects cannot be fixed, dodging their position; the eyelids become paralysed, drop down, and cannot be raised voluntarily; the pupils largely dilate; there is a feeling of lightness in the tongue; it ascends gradually to the roof of the mouth; pronunciation becomes slurred; then the extremities refuse to support the body, and erect motion without support becomes impossible; the pulse gradually becomes more frequent, rises to 120 or 130 and more beats per minute, is small but regular; respiration then becomes laboured, the mind remaining clear, however. This state will set in about an hour and a half after the ingestion of an overdose of the drug. ..... All the symptoms will disappear after about two hours, leaving no unpleasant effect or derangement of the organism." In many cases of poisoning the patients have complained of double vision, and dimness, even loss of sight, and the breathing is slow and sometimes irregular and shallow.

In the *Practitioner* for October, 1870, Dr. Roberts Bartholow published an account of some experiments made on frogs, pigeons, and cats. He concludes that gelseminum (*a*) acts chiefly on the motor portion of the cord; (*b*) its paralysing effect is due to its action on the motor centre, and not to an action on the peripheral nerve fibres; (*c*) it acts also on the sensory portion of the cord, producing at last complete anæsthesia, but this effect in warm-blooded animals and in man is toxic only, and follows the paralysis of the motor functions.

As this drug is now attracting considerable attention in this couutry, and has been largely used in America for fevers, including ague and influenza, hemicrania, spermatorrhœa, dysmenorrhœa, &c., we were induced to make these

investigations, which will be seen in many respects to corroborate the conclusions of Dr. Roberts Bartholow. At first we used the liquid extract prepared in America, which contains some spirit, but afterwards the alkaloid dissolved in water, extracted by Mr. Gerrard, teacher of Pharmacy at University College.

We now proceed to give a short general account of the effects produced by the drug on a frog.

A medium-sized German frog was injected with the drug in the neighbourhood of the posterior lymph hearts. In this, as in all our experiments in which injections were given, special precautions were taken to ensure cleanliness of the apparatus, and freedom from contamination by other drugs. Soon after the administration of the drug the animal became extremely apathetic, and it was found that there was considerable impairment both of voluntary power and reflex action. When placed on its back the frog made no attempt to assume its normal position for a minute or two, and then slowly turned over, often, however, stopping halfway and lying motionless on its side. On touching the eyes they were closed, but some minutes elapsed before they were again opened, and even then the movement was performed with abnormal slowness. The loss of voluntary power and reflex action gradually increased, and the animal soon became perfectly motionless. When placed on its back no attempt was made to turn over. The whole body was limp and flaccid, and the limbs remained in any position in which they were placed, either flexed or extended. On pinching firmly any part of the body, a very feeble and ineffectual attempt to escape was made, the animal in its unavailing efforts, falling over on its back or sides. The application of the poles of the battery to the limbs excited, in addition to the muscular contraction, faint reflex movements. *Pari passu* with these changes in the nervous system, the breathing became hurried and superficial, and as the paralysis increased, the respiratory movements became more and more shallow, and, finally, with the total

abolition of voluntary power and reflex action, entirely ceased. The heart continued beating for a considerable time after the cessation of the respiratory movements.

The rapidity with which these symptoms presented themselves, and the ultimate termination of the cases, varied with the dose administered. Thus twelve minims of the liquid extract injected under the skin of a large frog produced such an impairment of voluntary power that in three minutes the animal was unable to turn over, and in two and a half hours death ensued. In doses of five minims or less, some hours usually elapsed before the establishment of complete paralysis, and the animals frequently remained alive, but perfectly helpless for many days. In one instance, in which a five-minim dose had been given, life was prolonged until the tenth day. Towards the close of this period there was considerable improvement both in voluntary power and reflex action ; the effects of the drug appeared to be passing off, and hopes were at one time entertained of the ultimate recovery of the animal. A five minim dose of the 2 in 20 solution of the alkaloid gave rise to decided symptoms of poisoning in four minutes, and in five minutes later the full effects of the drug were exhibited.

With some frogs there occurred for a short time a peculiar mixed state. Thus, soon after voluntary and reflex power was completely abolished, on irritating one of the limbs, the hind extremities were sometimes shot out, and all their muscles, with those of the back contracted. This happened only occasionally. Thus, generally, on applying the electrodes to an extremity, only the muscle touched contracted, and none others ; but sometimes there ensued the tetanoid condition just described ; in a few minutes this ceased. With other frogs there occurred only a slight tremor of some of the muscles of the legs, chiefly those of the thigh. This tremor was at once excited by moving or jerking the body. It was apparently caused by the successive contraction of the muscles of the limb, giving rise to a peculiar flickering, which was readily perceived through

the skin. Supposing these phenomena to be due to the influence of the drug, they must be caused by its action on the spinal cord, for they occurred in the posterior extremities after ligature of the abdominal aorta.

Another circumstance also attracted our attention. When the electrodes are applied over the lower part of the spine of a live healthy frog, the hind legs are shot out much in the manner before described. Now it appeared to us that after poisoning by gelseminum the posterior extremities were more forcibly extended, and remained so for a longer time.

We then performed the following experiments to ascertain whether gelseminum paralyses by its effect on the brain, the cord, the motor or sensory nerves, or the muscles.

The paralysis of reflex and voluntary power is certainly not due to the action of the drug on the muscles; for after poisoning, on galvanic stimulation the muscles contracted as energetically as those of an unpoisoned animal; moreover, on several occasions we tied the abdominal aorta or the femoral artery and vein, and twice we severed the thigh, leaving the leg attached to the trunk only by the nerve, and then poisoned the animal, and we found that the muscles subjected to the action of the gelseminum contracted as energetically and retained their contractility as long as the muscles protected from the poison by ligature or section of the vessels.

Neither is the paralysis due to the action of gelseminum on the motor nerves. This, indeed, is proved by the experiments just mentioned, which we now proceed to describe more fully. We tied the femoral vessels on several occasions, and twice we cut through all the structures of the thigh, except the nerve, which alone connected the severed leg with the trunk, and then poisoned the animal by injecting the drug under the skin of the back, in the neighbourhood of the lymph sacs. The paralysis occurred as soon, progressed as rapidly, and became as complete in the limb protected by ligature or section from the action of the

poisoned blood as in other parts subjected to the influence of the poison. After complete paralysis we found that the nerves unprotected from the action of the poison conducted as freely as those protected by ligature or section. These experiments show that the poison does not act by its effects on the ends of the motor nerves; but the trunks of the nerves in the abdomen, and above the ligature in the thigh might be affected, and the paralysis produced in this way. We therefore on three occasions ligatured the abdominal aorta, just above its bifurcation, and then poisoned the animal in the manner described, and we found the paralysis progressed in the hind protected limbs as in the anterior, and as in the case of frogs whose hind limbs are unprotetced by ligature of the aorta.

There remain, then, to consider the brain, cord, and the afferent nerves. We shall treat of the loss of reflex power separately from that of voluntary power. It is obvious that the destruction of reflex power cannot be due to the effect of the poison on the brain, and as it is not due to the paralysis of the motor nerves or muscles, it must depend on paralysis either of the afferent nerves or the cord. It is not due to the paralysis of the afferent nerves, for after tying the abdominal aorta before administering the poison, and thus protecting the hind extremities from its effects, we could not excite reflex action by galvanic stimulation of the hind legs. It therefore appears that gelseminum abolishes reflex action by its effect on the cord.

Does it thus affect the reflex function by its direct action on the cord, or indirectly by stimulating the inhibitory centre for reflex movements? It does not act through Setschenow's inhibitory centre; for, firstly, the abolition of reflex function is too complete to be produced in this way, and, secondly, after producing complete loss of reflex action, we beheaded the frog, and so divided the cord below the inhibitory centre, which is situated in the neighbourhood of the optic lobes, and yet the loss of reflex power remained as complete as before. We therefore conclude *that gelsemi-*

num destroys reflex power by its direct action on the spinal cord.

We have next to explain how the loss of voluntary power is produced. We have shown that the paralysis is not due to the effect of the drug on the muscles and motor nerves, and it is obvious that the loss of voluntary power cannot be produced by paralysis of the sensory nerves. It must therefore be due to the action of the gelseminum either on the brain or the motor tract of the spinal cord. We have no experiments to decide this question, but we offer the following reasons in favour of the view that it acts through its influence on the cord :—(*a*) The loss of voluntary and reflex power proceed *pari passu*. (*b*) The abolition of reflex power being due to the effect on the cord renders it to some extent probable that the loss of voluntary power also depends on affection of the cord. (*c*) In the case of accidental poisoning where the voluntary power was so complete that the patients could not move a muscle could not even raise the eyelids, it is recorded that on recovery they asserted that their consciousness was not at all affected. It may be said that if the loss of voluntary power is due to paralysis of the motor tract of the spinal cord, it should not conduct electric impressions But we may remark that a great difference of opinion exists among physiologists respecting the conducting power of the cord of electric irritation, and it appeared to us therefore unnecessary to perform this experiment.

We have seen that the afferent reflex nerves are paralysed. Are the sensory nerves affected? If the sensory nerves are also the afferent reflex nerves (the view generally held by physiologists), the question of course is answered in the negative. Still we suppose that though some afferent nerves may have this double function, yet there are others which are simply sensory. Are these paralysed, or are the sensory perceptive centres paralysed? In other words, does gelseminum destroy sensation as some writers have supposed, and if so, does it act on the sensory nerves or the

sensory tracts of the cord, or on the sensory perceptive centre? These experiments do not enable us to answer these questions, but we may state that as long as voluntary movement remained, the frog seemed to feel pinching and galvanic stimulation, for on the application of either kind of irritation, the animal made voluntary efforts to escape, though after paralysis was marked it required considerable pinching to induce voluntary movement. Was this due to defective feeling or from the paralysis requiring a greater effort to cause movement? We shall return to the effect of gelseminum on sensation, when we treat of its effects on man.

The foregoing experiments prove that gelseminum abolishes reflex, and probably voluntary, movement by its influence on the spinal cord. It may, however, in addition, to a slighter extent, and late in the poisoning, affect the motor nerves. This is the case with Calabar bean, which paralyses the spinal cord, but also slightly the motor nerves. To learn whether gelseminum in any way depresses the motor nerves, we performed the following experiments on three frogs. We tied the iliac artery, and then poisoned the animal; and, after the loss of reflex and voluntary power, we tested at frequent intervals the conductivity of the sciatic nerves to electric stimulation, and we found that the gradual loss of the power of conduction was equal in the two nerves, but that after some time the nerve protected from the action of the poison required a rather stronger current than the unprotected nerve, due, perhaps, to diminished nutrition from arrest of the circulation. Hence we conclude that probably (for our experiments are not numerous enough to settle absolutely this question) gelseminum exerts no influence on the motor nerves.

We may here state that in each experiment in which an artery was tied we ascertained by a post-mortem examination that the operation had been successively performed. —*The Lancet.*

On the Duration of the Quarantine required after Puerperal Fever. By J. Braxton Hicks, M.D., F.R.S., Obstetric Physician to Guy's Hospital.

It has been asked in the *British Medical Journal*, and I have also been frequently and earnestly urged in the same direction, that an opinion should be authoritatively pronounced, for a guide to the profession generally, as to the length of time an accoucheur should abstain from midwifery practice after attending a case of puerperal fever. It has come to my knowledge, from several sources, that somehow the public have acquired an idea that it requires *three months'* purification before a medical man is fit again to attend confinements. From whence this idea has originated I am at a loss to understand ; no statement of the kind can have originated from the profession. Indeed it is self-evident that midwifery practice would not be possible on such a basis. If we suppose the same rule to exist after all cases of zymosis, the impossibility of practice is clear. It is possible, indeed I think it highly probable, that assisted, by the manipulation of midwifery, contagia would continue for a longer time influential than is usually observed in the attendance on the ordinary zymotic diseases. Yet the difference cannot by any means be so great as is indicated by fixing the time at three months.

It does seem to me, therefore, very desirable to have some kind of rule as to the time, which on the one hand, would secure our patients from risk ; and, on the other, would serve as a protection to our profession from the extravagant demands of the unlearned. And, indeed, there is another point very important to the public, namely this : that if the quarantine extends beyond a practicable time, women will find a difficulty, and, perhaps, an impossibility, in obtaining aid in their hour of trial. I am not now alluding to the time required in those rare cases where puerperal fever haunts a practitioner for months ; these though well authenticated, are very rare ; our rules for every day life are not based on exceptions, but on ordinary conditions.

The speakers in the recent debate at the Obstetrical Society, while admitting that there should be an interval, have not fixed its duration ; except the President in his late address to the Society, when he expressed his opinion that a week should elapse after the last day of attendance on a single case ; but, in the event of a series, then a month.

The readers of the *Journal* could, therefore, render no more valuable service than by communicating in its columns facts bearing upon this very practical question. For myself, I have always held three weeks' abstinence and purification to be the best approximation to the requirements of the case, giving ample time, probably more than actually necessary, to discharge the poison from the system and clothes. I am indebted for this belief to my teacher and predecessor in the chair of midwifery at Guy's, the late Dr. Lever. The soundness of this advice has been borne out by long experience over very large fields of observation ; for I am not aware that it has been found to fail to cut off the spread of the disease, if we except those rare instances above alluded to, which probably have their origin in some conditions to which the medical man is exposed unknowingly in his house, etc. Three weeks may be thought too much by some ; but if a rule is to be laid down, it must cover all reasonable contingencies ; for when we bear in mind that in an attendance on a case lasting, say a week, with frequent and prolonged visits, manipulations, washing out of uterus, the hands and clothes become saturated with the contagium, we could scarcely expect to evolve this wholly in less than twelve or fourteen days ; and, therefore, an extra week does but give a complete security in the matter. There is also another view ; the extra week of obligatory rest from heavy midwifery practice is beneficial to the medical man, harassed and depressed as he would be after continuous attendance on these distressing cases. Of course, the state of the weather makes much difference as to the time during which contagium lingers on the clothes. No doubt a brisk walk in a gale,

with a thorough drying of the clothes before a fire, coupled with a brushing afterward, will, if the visit be short, probably go far to remove the poison ; yet it would be unwise, as a rule for every case, to act on this view. Taking everything into account, I would give it as my opinion that, if three weeks' abstinence be adopted as a rule after the last day of attendance, the medical man should be held to have adopted all reasonable precautions, and not to be guilty of culpable carelessness.—*British Medical Journal.*

A New Method of Dilating the Eustachian Tube and Ventilating the Cavity of the Tympanum.

Prof. Gruber, of Vienna, has recently made public a new means of obtaining the good effects of catheterization of the Eustachian tube without incurring any of the difficulties or dangers of that operation. Prof. Politzer has, as is well known, devised a method having the same object in view. The patient holds some water in his mouth ; he introduces into the nose the end-piece of a kind of syringe made for the purpose, and holds it in the nostril air-tight with one hand. He then swallows the water, and at the command of the surgeon injects the air in the syringe into the nasal cavity and onwards. Air can by this means be driven into the Eustachian tube. Lucœ proposed to effect the same result by replacing the swallowing of water in Politzer's experiment by directing the patient to pronounce the vowel *a* (as in *fa*ther) and then injecting air. Prof. Gruber finds that pressure of the root of the tongue against the most posterior part of the palate during a strong expiration presses the soft palate upwards and backwards and thus completely closes the fauces, and thus the exit of air through the nose and mouth is entirely prevented. This requires, however, in some persons a little more care than in others, and consequently, instead of a simple expiration, it is often desirable to make the patient try to

pronounce, during vigorous expiration, the sound *kck* or *hck*, introducing between the consonants various vowels, as *hack*, *heck*, *hick*, *hock*, *huck*, &c., until the sound is got which most effectually produces closure. During this manœuvre air enters the tube, and the tympanum will often be felt affected, as in Valsalva's experiment. Prof. G. utilises these facts as follows :—The surgeon places himself before the patient, introduces into his nose the end of the nose-piece of the syringe, and closes the nostrils over it hermetically with two fingers. At the word of command the patient pronounces one of the syllables (*hick*, &c.,) as above, and at the same moment the surgeon injects air. It is preceived at once to enter the tube with a distinct sound, which can be ausculated by the otoscope, and in cases of perforation, produces the usual sound. These and all other signs of the entrance of air into the tube are present, and prove the success of the operation. If the head be bent well to one side during the operation, the upper ear is almost always the one into which the air enters, and it does so more easily than when the head is erect.—*Vide Allgem. Wien. Med. Zeit.*, Nos. 42, 51.—*The Doctor.*

Bacteria and Septicæmia.

In an elaborate experimental paper *(New York Medical Record)*. Dr. T. E. Satterthwaite arrives at the following conclusions :

1. Bacteria are certain vegetable organisms which belong probably to the algæ ; they are found abundantly in nature, but chiefly where there is moisture.

2. They exist in the body in health, covering the mucous membranes from the mouth to the anus, and sometimes appear to penetrate a certain distance into the system, without causing symptoms of disease.

3. They also exist in putrefying fluids, and in various disease-processes, occurring in hot and cold abscesses, in the blebs of erysipelas, and in simple blisters.

4. It is doubtful whether the virulent principle of infective diseases is albuminous.

5. This principle does not reside in the perfectly clear fluid that passes through porous clay. In putrid infectious fluids this appears to be certain. The poison is rendered less virulent by repeated filtrations through common filter-paper.

6. The virulent principle may be boiled for hours, filtered numbers of times in the ordinary way, boiled with alcohol, and again filtered and dried, and yet the watery extract of such a dry residue will produce septic symptoms. It is therefore soluble, or at least suspended in water.

7. The liquid which is thus poisonous may be clear to the eye, but contains granules under the microscope.

8. These granules have not produced bacteria in a number of instances when they were placed in a suitable condition to do so.

9. We cannot, therefore, feel that satisfactory evidence has been brought to show that, in any of the diseases or processes enumerated, minute organisms are the sole and sufficient causes of disease.—*Medical Times*, *Phila.*

The Temperature of Drunkards.

The *Deutsche Arch. f. Kin., Med.*, vol. lx., p. 12 contains a very important paper by Reincke, of Hamburg, on this subject. In his recent Cantor Lectures on alcohol, Dr. B. W. Richardson referred to the power of diagnosing dead-drunkenness from other causes of coma by the fact that the temperature of drunkards is diminished. Reincke has found that the internal temperature of drunkards exposed to cold may fall to an extent hardly conceivable. The rectal temperature will commonly fall to 95 deg. F. or 93 deg. F.; it may descend to 82 deg. F., or even as low as 75·2 deg. F. The subject on whom the last was observed recovered and regained his normal temperature after 23 hours.—*The Doctor.*

Local Origin of Cancer.

Virchow's *Archives*, No. lxiv', contains an article by Fredun, of Breslau, on the "Primitive Seat and Mode of Extension of Pelvic Carcinoma in Women." He relates several cases of pelvic carcinoma occurring in virgins or women with atresia vaginæ. In these cases the cervix uteri, which is the commonest seat of the disease, escapes, or is only secondarily affected, there being an absence of all sources of irritation. It is around the rectum or bladder, or in the connective tissue of the cavity of the pelvis that the disease originates in these cases. The author admits the insufficiency of his materials, but his opinion is carefully stated.—*The Doctor.*

The Diagnosis of Cerebro-spinal Meningitis.

In a recent clinic Dr. Richards remarked that, while pain in the head, vomiting, epileptiform attacks, disease of the optic discs, emaciation, eruptions, involuntary micturition, were symptoms found in many head-affections, the sudden onset of symptoms, pain in the back of the neck, the stiffness of the muscles of the neck, and retraction of the head, were sufficient to separate cerebro spinal meningitis from hydrocephalus acutus, basilar meningitis, and tumor of the brain, diseases to which, in its symptoms, it was nearly allied.—[*Phil. Med. & Surg. Reporter.*

Jervia—A New Alkaloid in Veratrum Viride.

In the *Amer. Jour. of Pharmacy* for Oct., 1875, Charles Bullock describes the alkaloid *jervia*, known for a number of years as existing in the root of veratrum album, but now found by him in the American species, *viride.* Its physiological properties are described by Prof. H. C. Wood, Jr., as producing general weakness, without vomiting or purging, lowering arterial pressure and slowing of the pulse, profuse salivation, and finally convulsions. The character of the convulsions is very peculiar and very constant.

CANADA

Medical and Surgical Journal.

MONTREAL, FEBRUARY, 1876.

CITY SMALL POX HOSPITALS.

We have received the following circular from Alderman McCord, Chairman of the Health Committee, and are happy to be able to announce to our readers that at long last we are, in this good city, provided with two Small Pox Hospitals, both under civic control. One under the management of the Ladies of the Providence Nunnery, intended for Roman Catholic patients; the other under the charge of a lady of experience, we presume a Protestant, and exclusively intended for the Protestant community. Both hospitals are under the professional care of Dr. La Rocque. This, if we might make a suggestion, could be slightly improved upon.

Our French-Canadian fellow citizens have forced upon the city the establishment of two separate and distinct hospitals. We were opposed to sectarian or national distinctions of any kind, and should have gladly seen but one institution, but since we have two we are quite satisfied, and shall second the efforts of the Health Committee in their laudable attempts at isolation. But with regard to the professional services alone of Dr. Larocque, why, might we ask, is the Protestant Small Pox Hospital not under the professional care of Dr. Dugdale? That gentlemen was, we believe, selected as Health Officer by the City Council, to represent the English speaking part of the community. If, then, he occupies the very important post of Health.

Officer to the Protestant side of the city, why does he not assume the charge of the Protestant Small Pox Hospital?

The French-Canadians have their own selection in Dr. La Rocque. The British Canadians will, we feel certain, expect to be treated by a professional man of their own nationality. We regret to make these allusions; still, we think it a duty. We have understood that Dr. Dugdale does not desire to attend the City Small Pox Hospital. If so, there are many others who would gladly do so; and we do believe it would conduce to a feeling of greater confidence in the success of both institutions, if they were under separate and distinct professional charge. We do not consider it necessary that the Health officers should attend the Small-pox Hospitals, as it is a separate and distinct service for which those gentlemen should receive a separate and distinct gratuity. But since the city, at considerable outlay, have established a Roman Catholic and a Protestant Hospital, separate and distinct as to internal management, let the theory be carried out to the full, and give us a French Canadian Catholic Physician and a British Canadian Protestant Doctor!!!

We subjoin Mr. McCord's circular.

CITY HALL.

1st February, 1876.

MY DEAR SIR,

As you are aware, the City has provided accommodation in the Civic Hospitals for its citizens suffering from small-pox. The Roman Catholic patients are received in the new building on the Hall property, attended by the Ladies of the Providence, and the Protestant patients, in the stone house on the same property, in charge of a lady of experience, assisted by a competent staff; and both hospitals are attended by Dr. Larocque, one of the Medical Health Officers, and every care and attention paid to the comfort of the patients. These hospitals are very favorably situated with a view to the recovery of the patients and, in the new building especially, the wards are very large and well ventilated. It is very desirable that citizens suffering from small pox should avail themselves of the advantages thus placed at their disposal by the City and by going to hospital and thereby isolating themselves, limit, as far as possible, the chance of communicating the disease to others. We have scarcely a doubt that patients are daily recovering in the Civic Hospitals, who should have succumed to small pox, had they remained

in their crowded homes. Accommodation is also provided for a limited number of pay patients in private wards, who may be visited by their own Medical Attendants or by the Health Officer at their option. For terms in private wards, kindly communicate with Dr. Dugdale, No. 645 Lagauchetiere Street. You are earnestly requested to advise your patients who may contract small pox to go into the Civic Hospitals in cases where isolation cannot be obtained in their residences, or when in your judgment it be desirable to do so. The Health Committee, in its endeavours to diminish small pox in the City, desire the kind co-operation of the medical profession, as it is conscious that any success achieved will be very largely due to such co-operation.

You are, of course, aware that the Hotel-Dieu and the Montreal General Hospital have been obliged to decline small pox patients.

I am, dear Sir,

Your obedient servant,

DAVID R. McCORD,
Chairman of Health Committee.

PRESENTATION

Of a Service of Plate to Charles O'Reilly, Esq, M.D., on the occasion of his retirement from the office of Resident Physician, City Hospital, Hamilton, Ont :—

Last evening His Worship Mayor Roach entertained the members of the Corporation this year, and those who had seats at the Board during 1875, together with the city officials and a few other invited guests, at dinner at the Royal Hotel, on the occasion of a presentation by the Aldermen of the city to Charles O'Reilly, Esq., M.D.

After the customary loyal toasts had been given,

The Mayor said that he had a most pleasing duty to perform. One of the objects of our gathering together this evening is to do honor to one of our rising professional young men, who has been our Resident Physician of the Hospltal for nearly nine years, during which time he had gained the respect and esteem of all with whom he has come in contact—who by his energy and ability has obtained the management of one of the largest hospitals in the Dominion.

Dr. O'Reilly. We congratulate you on the appointment for many reasons, for I believe you stand higher in the estimation of our citizens than you have ever done. To-night we have met to give you this presentation to testify the high respect and esteem we entertain for you. I regard it a privilege to be entrusted by the subscribers with the discharge of a duty of such an agreeable character. In handing it to you I can assure you it is offered by us as a tribute of our high regard and admiration, and I am sure I am only

echoing the sentiments, the sympathy and the desire, and uttering the words of all present, when I say I hope God may prosper and bless you..

He then read the following address :

To Charles O'Reilly, Esq., M.D., late Resident Physician to the Hamilton City Hospital, and Medical Officer to the Board of Health.

DEAR SIR: We feel that we ought not to allow the occasion of your retiring from your official position as Resident Physician of the City Hospital and Medical Officer of the Board of Health, to pass without expressing both our regret in parting with you, and our entire satisfaction with the manner in which you have discharged the duties of your offices. Under your manage ment as Resident Physician, during the past nine years, our Hospital has acquired more than a local reputation as a model institution, and your attention and courteous demeanor to all who have been brought in contact with you, either officially or otherwise, has gained many ardent and admiring friends; we beg you will accept, as a token of our kindly feelings towards you, and of our appreciation of your past valuable services to the city, the accompanying Service of Plate, and in saying "Good-bye," we assure you that you have our warmest wishes for your success in the new sphere of duties upon which you are about to enter.

Signed on behalf of the Corporation,

GEO. ROACH,
Mayor.

(The present consisted of eight pieces of silver service, onsisting of salver, urn, coffee pot, tea pot, sugar bowl, butter cooler, slop bowl and cream jug, all of the latest pattern and most beautiful design. They were procured at Crystal Hall, Hamilton, from Mr. Thomas Egan, and reflect the greatest credit upon both dealer and manufacturer.)

The health of Dr. O'Reilly was then proposed, received with three times three, and enthusiastically drunk.

REPLY.

DR. O'REILLY replied as fcllows;

MR. MAYOR AND GENTLEMEN,—Allow me to assure you I had no anticipation that, on my departure from Hamilton for another sphere of professional labor, you intended to pay me so high a compliment as you have done s evening by the presentation of the beautiful and costly testimonial of your regard and esteem as that before me now, and of your appreciation of my services in connection with the Hamilton City Hospital Nearly nine years ago, when comparatively a mere boy, just fresh from McGill College, you confided to my care the responsible position of Resident Physition of the Hamilton City Hospital. During that period it was my sole aim and study to discharge my official duties for the best interests of the city, to meet the approval of the

City Conncil and for the relief of the suffering and afflicted committed to my care. I am proud to know in retiring from the City Hospital, that it has been so well and efficiently managed as to merit and receive the hearty commendation of all those competent to form a correct judgment on the subject, both here and elsewhere; but at the same time I must remark that little credit could be laid at my door, had I not been constantly aided and assisted in every possible way by the untiring energy and judicious advice of the Chairman of the Hospital Committee, Mr. Fitzpatrick, and the harmonious co-operation of the various Hospital Committees that have had charge of the institution during my incumbency. I am happy to state as a pleasing coincidence, that Mr. Fitzpatrick entered upon his duties as Chairman of the Committee in the same year that I myself became resident physician: but I regret to say that he, too, retires from the position he has so long and honorobly held at the same time as myself, though I have no doubt that his successor, Dr. Crooker, will prove a most efficient officer. Personally, gentlemen, I feel confident of your friendship and your good wishes for my success, and officially, I am sure a greater compliment could not have been paid me than that of which you have made me the honored recipient this evening. I expected to leave Hamiltou quietly, but this you have now effectually prevented by your great kindness and liberality on this occasion. I can assure you it is a hard task to leave my native city, and to say good-bye to those whose friendship has stood the test of so many years, but whose kindly and heart-felt wishes will go with me I am sure, to my new home. Mr. Mayor, and Gentlemen, in leaving Hamilton I required no such substantial proof to make me think of the past and of the many happy years passed among you and in your employ, but I can assure you that I shall always feel proud to look upon this magnificent and splendid *souvenir*, which you in your generosity and kindness, have presented me with this evening, and through all my coming years I shall look back upon this as one of the *red letter days of my life*. Mr. Mayor and gentlemen, I again repeat, and I trust you will all accept, my most heartfelt thanks for the honor you have conferred upon me this evening.

The doctor was cheered on taking his seat.

We believe that Dr. O'Reilly has received the appointment of Resident Physician to the Toronto General Hospital; and, from what we know of the Doctor, we believe that he will be a thoroughly efficient officer. We wish him every success in his new sphere of duty.

THE LATE GEORGE GREEN GASCOYEN, F.R.C.S., ENGLAND.

It is with a feeling of deep regret that we record the death of George Green Gascoyen, one of the Surgeon's to St. Mary's and the Lock Hospitals, London. Our per-

sonal acquaintance with him was slight, yet we were impressed with his earnest and fervent manner, with his sincerity, thoughtfulness, and lack of selfishness.

We first met in the summer of 1872, when Mr. Gascoyen visited this country, seeking health in recreation and temporary relief rom the arduous duties of a London hospital surgeon. His stay in this country was very short, and we saw less of him than we should have desired, as he was a most interesting companion. Two years ago we met again in London, and we regretted to see a marked change in his appearance; he looked fagged and weary and markedly thinner, and was on the eve of a trip to the Continent.

In parting he intimated his intention of visiting Canada in a year or two, and expressed a hope of our again meeting. He was recently elected an Examiner in Anatomy at the Royal College of Surgeons of England, and we learn from an exchange that, although in ill health, he attended two meetings of the Examining Board the week prior to his death, so that he may be said to have died in harness. The immediate cause of his death was pleuro-pneumonia; he died on Sunday, the 23rd January ultimo, at his residence Queen Ann Street, Cavendish Square, at the age of 46 years.

We observe it is stated in the *Medical Times* that "with him, unfortunately, dies a vast accumulation of knowledge, especially relating to syphilis, the result of many years labours in the Lock Hospital."

Nitrate of Soda in Dysentry.

Several German physicians extol the use of nitrate of soda in dysentery. When the small intestine is involved, 60 to 100 grains are given in 24 hours. When the disease is confined to the colon and rectum, the quantity given during the day is much greater—from three to six drachms. It is given in an oily emulsion, and warm.—*Pacific Medical and Surgical Journal.*

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Remarks on various Operations for Cataract, with statistics of 510 Cases.

By FRANK BULLER, M.D., M.R.C.S., England ; late Resident Surgeon to the Royal London Ophthalmic Hospital.

(Read before the Medico-Chirurgical Society, Montreal.)

It is not my intention to weary you with labored descriptions of the many operations which have from time to time been proposed and performed for the removal of cataract, each of which has in turn found ardent admirers and zealous advocates, strong in their belief, that the nearest possible approach to perfection had at last been attained, and each of which has, in the opinion of its upholders, presented advantages—some real and some imaginary,—not to be claimed for any preceding method. Some of these operations have been born in obscurity and died in their infancy ; others of more robust parentage have lived longer, and flourished for a time, but have likewise passed away, whilst others, again, endowed with still greater vitality retain all the freshness of youth and seem to be in a fair way to survive as long as the science which brought them into existence.

These last are, in a practical point of view, most worthy of consideration, and since the question as to their relative merits cannot yet be considered settled, it is fair to assume that fresh facts bearing upon this question will not be unacceptable to those who interest themselves in ophthalmic surgery. I therefore venture to place before you, in as condensed a form as possible, the results obtained in all the

operations done for uncomplicated senile cataract in the Royal London Ophthalmic Hospital during the last three years. The diagram is intended to show the three methods of extraction chiefly in vogue at the present time. The dotted line No. 1 is, as you will perceive, intended to represent the line of incision for the linear extraction of Von Grâfe. It differs very much from No. 2, in which the dotted line represents what may be called the oblique corneal, or median flap operation, the puncture and counter-puncture being made at or a short distance behind the sclero-corneal junction, in the horizontal meridian, and without iridectomy. The same knife may be used for its performance as in the Von Grâfe operation, its blade forming an angle with the plane of the iris, of about 45°, until the section is completed.

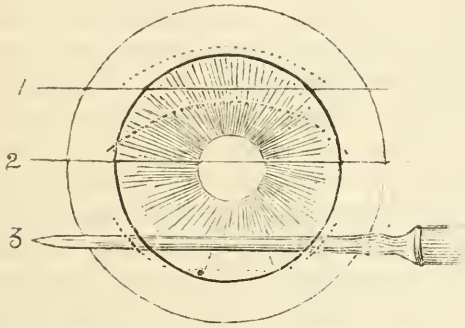
No. 3, which I shall call the sclero-corneal operation, is the modification of Von Grâfe's incision, now adopted by many eminent ophthalmic surgeons. The puncture and counter puncture are made nearer the corneal margin, the corneal flap is larger than the latter, and the top of the incision is usually made entirely within the cornea, consequently no conjunctival flap is formed.

Of course there is no absolutely fixed point for commencing the incision in any one of these operations, and hence certain variations will occur, partly accidental and partly intentional. The linear extraction of Von Grâfe, slightly modified, is I believe still practised by most German ophthalmologists, as well as by many others both in Europe and America.

The oblique corneal method, done either upwards or downwards, but without iridectomy, has not nearly so many supporters, though, for reasons I shall presently mention, it is likely to remain in favor with a certain number of operators. Lastly, the sclero-corneal operation seems to have found more favour in England than elsewhere, and it is more frequently performed at the Royal London Ophthalmic, than any other operation; though, it must be admitted, with such an amount of variation at the hands of different

surgeons, that it was often difficult to decide whether in some instances the most appropriate designation would not have been "flap operation with iridectomy;" or in others, whether it should not be named "linear of Von Grâfe." But since the sclero-corneal junction was always to a greater or less extent involved in the incision, which however was never made so far back as in the scleral or linear extraction of Von Gräfe, or so far forward as in the old flap operation, I have determined to adopt the name sclero-corneal for all the operations done at Moorfields, which do not belong distinctly to one of the other classes mentioned.

Under this head then the larger number will be classed. There is a much smaller number of the oblique corneal



section, still less of the flap extraction, and in addition to these are a few in which the incision was made with a keratome, and the lens removed by a scoop. These last, only twelve in all, retain the old name of "scoop extractions," and form accordingly a class by themselves.

Before proceeding any further a few words as to why certain operations for the removal of cataract have fallen into disuse may not be out of place, inasmuch as they may help us to form clearer ideas in regard to the causes of failure or partial failure, which still too often attends each of the three operations now most frequently practised; for it is only by clearly recognizing these causes that we can

ever hope to render success a certainty, or that we can determine in any given case exactly how to proceed in order to give the patient the best possible chance of regaining vision. To begin with reclination or couching, it is inconceivable that an operation apparently so simple and easy, should have been abandoned by general consent, unless very strong objections were to be urged against it, and such we find to be the case. The principal objections are as follows :—The lens was apt to become broken and remain in part at least behind the pupil. It often ascended again and rendered the operation futile. Frequently violent inflammation followed the operation almost immediately and destroyed the eye. If everything went well for a time the dislocated lens was practically a foreign body within the eye, and as such, always liable to set up destructive changes, so that good results were often found not to be permanent. Recent statistics upon this subject are of course wanting, but those at our command seem to show that not more than 40 or 50 per cent. of satisfactory results were obtained.

Discission of senile cataract either through the cornea or sclerotic is even more unsatisfactory, for in order to effect a cure the operation must be repeated very many times, always with a risk of setting up iritis or traumatic glaucoma. I have seen one case, a man aged 58, who had had both his lenses needled thirteen times in four years and still they were not half absorbed. At this rate most persons afflicted with senile cataract would scarcely regain vision on this side of the grave.

The linear extraction invented by Gibson in 1811, soon fell into disuse, but was revived again for a short time in 1851. It was found, however, to be only adapted to soft cataracts, as any attempt to extract a hard lens through so small an opening, implied a degree of violence which even the best disposed eye could not fail to resent, nor was this all, for after the repeated introduction of traction instruments, insult was added to injury by the fragments of lens which

they had failed to remove still remaining in the eye, sure premonitors of future trouble. The operation known as "Flap extraction," is one which commands respect both for the successes it has to record and on account of its long and undivided reign. For more than a hundred years it was almost the only extraction performed. As far back as 1752 it is stated that out of 206 flap extractions 182 proved successful, and in 1873 Arlt of Vienna, after a very large experience extending over thirteen years and numbering 954 operations, claims to have obtained 79 per cent. of success, and only to have failed in 7.86 per cent. of his cases. But he records 1075 extractions by the modified linear method, in which he has obtained a still higher percentage of success and a lower one of failure, viz.: 83.72 per cent. and 5.67 per cent. respectively. He has, therefore, like most other ophthalmic surgeons, almost entirely abandoned the flap extraction in favor of the latter, believing that it offers on the whole decidedly better chances of restoring useful vision.

In England it was not until the introduction of chloroform into ophthalmic practice that men began to feel the urgent need of some other method of extraction, and they fondly hoped when the "scoop operation" was introduced that the great desideratum had been attained. For a time its results seemed to justify their enthusiasm.

The charges against the flap operation were (and they still hold good) as follows: The cornea lost, to a great extent, its proper source of nutrition, and was apt to necrose. The size of the flap tended to prevent perfect coaptation of the cut surfaces, which were also liable to be kept asunder by foreign substances. Prolapse of iris was likely to occur either during or after the operation. The iris was often much injured by the passage of a large hard lens through a narrow pupil, thus giving rise to traumatic iritis; and lastly vitreous humor often escaped, more particularly was this found to be the case when chloroform had been used and happened to have caused coughing or vomiting. Thus we

see the indictment against the flap operation is a heavy one. Not less serious are the charges against its immediate successor the "Scoop operation," for here we have the introduction of three instruments within the eye, besides the one necessary for making the incision. The iridectomy, however harmless initself, had a different significance when associated with the stretching and bruising of the iris, which occurred during the extraction of the lens. Portions of cortical substance generally became detached from the main body of the lens by the pressure of the scoop and were difficult to remove. So that in this operation fragments of lens frequently remained in the eye, and added to the misfortunes of the already sorely tried iris, nor was the latter slow in responding. Accordingly we find that a large proportion of these cases suffered from iritis, often of a severe type, and of the cases which apparently made a good recovery, very many required subsequent attention on account of thickened capsule in the pupil. Rupture of hyaloid membrane, caused by the introduction of the scoop, and consequent loss of vitreous was not an uncommon occurrence. In so far as this operation permitted the use of chloroform, or even rendered the administration of an anæsthetic almost indispensable, it may be regarded as a triumph over the one previously considered, but the drawbacks just enumerated soon cast a shade over the joyous hopes of its converts, one after another of whom were forced to acknowledge themselves disappointed in their expectations, for the test of experience, the only true guide in such matters, revealed the stubborn fact that disaster still too often attended their best directed efforts.

A few years sufficed to decide the fate of the scoop operation, and now it is to be placed in the category of those things which we often hear of but seldom see.

The method of Von Grâfe now succeeded the scoop operation and was soon almost universally adopted ; but many operators found themselves in a new dilemma occasioned by the extremely peripheral position of the incision, as

performed by the distinguished Berlin Professor. This led to slight modifications by one or other of his imitators, and as an outgrowth of these we have to-day the two methods of extraction indicated by the figures 2 and 3 in the diagram, neither of which can, however, as already stated, be looked upon as fixed and unalterable procedures, but may be varied in detail according to the exigencies of the case or the whim of the operator.

The statistics I propose to lay before you are mainly in reference to these two methods of performing the operation, due allowance must, of course, be made for the fact that these operations were not all the work of one man, but of several, and that no two of them perform the same operation exactly alike. I must own, to my sorrow, that in going over the record of the cases I have discovered many deficiencies, and am consequently unable to elucidate several of the points which cataract statistics, properly worked up, ought to shed light upon. There are, however, insuperable difficulties in the way of arriving at an exact knowledge of final results in hospital ophthalmic practice, and this must in part excuse the imperfections of any report which includes all the cases treated during a long period of time, if, as in the present instance, the number is very considerable.

Most of the cataract statistics hitherto published have emanated from private individuals or institutions superintended by the person who makes the report as well as performs the operations, hence they are open to the suspicion that everything has been done to bring out the work of the individual in the most favorable light possible, and for this reason many people profess to hold such statistics in very little esteem. No such reproach will apply in the present instance, for I claim to stand on neutral ground without bias of any sort, and without the slightest motive or inclination to represent facts in other than their true light.

The number of extractions which have come under my care whilst connected with the Royal London Ophthalmic Hospital is in all 579; of these 69 were complicated in

various ways and must be excluded from the statistics, leaving 510 cases of uncomplicated senile cataract; 416 were operated upon by the sclero-corneal method.

Of these 416 I find 323 are stated to have recovered without any serious drawback, (slight degrees of Iritis being left out of consideration) although at the date of discharge many of them could see but very imperfectly either on account of lens substance obstructing the pupil or from disturbance in the refractive condition of the cornea, the latter being either one of acquired astigmatism, or loss of normal transparency, which again may have been due to injury inflicted by the operation, or, possibly, to the prolonged use of bandages after the operation ; or, what is more likely a combination of these circumstances very frequently exists, and this is the chief reason why the vision test after cataract operation is not of much value, unless it could always be made at a time when the ultimate result may be regarded as established, say six months or a year after the operation. The impossibility of carrying out such a scheme in case of hospital patients coming from a distance is self-evident.

I have noted the vision obtained whenever it could be done, but without going into the details of each case, no safe conclusion can be drawn from the figures thus obtained, inasmuch as vision was sometimes tested just before the patient's discharge from the hospital, sometimes after an interval of several months had elapsed, the patient having returned to procure glasses, and often after needle operation had been done for secondary cataract.

Of the 323 sclero-corneal operations, the acuteness of vision was tested in 184, and was as follows ;

In	3	cases	V = $\frac{20}{200}$
"	4	"	" = $\frac{20}{50}$
"	9	"	" = $\frac{20}{40}$
"	19	"	" = $\frac{20}{30}$
"	42	"	" = $\frac{20}{70}$
"	43	"	" = $\frac{20}{100}$
"	36	"	" = $\frac{20}{200}$
"	10	"	" = $\frac{15}{200}$
"	12	"	" = $\frac{10}{200}$
"	4	"	" = $\frac{7}{200}$
"	2	"	" = $\frac{4}{200}$
Total	184		

In the remaining 139 cases, in which vision was not tested, it is probable that better results were obtained, since

many of those in the above list had returned to the hospital on account of defective vision.

In ninety-five cases the course of events was less favorable.

Of these 26 recovered after rather severe iritis, leaving vision at least temporarily a good deal impaired. How many of them would require subsequent operative interference, I have had no means of ascertaining, but it is worthy of note, that in eleven instances the cause of the iritis seemed evident. Thus in four the incision had been made relatively too small for the size of the lens, in four others a considerably quantity of lens matter remained in the eye, and in three the iris was entangled at one corner of the wound.

Twenty suffered from severe iritis, leaving closed pupil, but good perception of light with a fair prospect of useful vision after an operation for artificial pupil in eleven of them, but nine were practically lost. The apparent cause of the iritis was only noted in five instances, and was smallness of the incision necessitating use of scoop in two cases, the presence of fragments of lens in the eye in two others. The fifth seemed to be the result of an inflammatory process beginning in the wound of cornea. In seven cases hæmorrhage into anterior chamber occurred several days after the operation, but without serious consequence, except in one instance, in which the bleeding seemed to be caused by an inflammation of the iris,it was repeated on several times and resulted in almost complete closure of the pupil with vision reduced to quantitative perception of light, the eye was probably lost.

Acute Panophthalmitis with total loss of vision followed the operation in 13 cases. Probably induced by constitutional cachexia in two instances, which occurred in feeble broken down work-house patients, one of whom lost his eye during an attack of diarrhœa on the third day after operation. In a third case, also a work-house patient in feeble health, the wound had not healed at the end of six

weeks when a small button of vitreous protruded, and shortly afterwards the eye suppurated. The fourth and fifth lost vitreous, and the lens was extracted with difficulty by means of a scoop. The sixth was due to an injury to the eye several days after the operation. The 7th was caused by a detached fragment of iris left in the eye. In the 8th, nucleous of lens was probably not exracted. The 9th perished by suppuration, beginning in edges of the wound. Four others went wrong without any ostensible reason.

Vitreous escaped during the operation or before the bandage could be applied in twenty-seven cases.

Two of these perished as just stated, by acute Panophthalmitis. Eight recovered without further complication. Nine suffered a good deal from inflammatory reaction, but made a fair recovery. In two cases the vitreous was cloudy, but condition of eye otherwise favorable when discharged. In six the reaction was so severe that the eyes were practically lost.

Three eyes perished from intra-ocular hœmorrhage, probably caused by vomiting after the anæsthetic used.

The results obtained in the seventy-five cases of extraction by the oblique corneal method stand as follows:

Forty recovered without any serious drawback. Seventeen recovered with anterior synechia, of which in nine the synechia was partial, in five it extended all along the line of incision, in three it was also complete, resulting from prolapse of the iris.

Four suffered from severe iritis, but made a good recovery.

Four Recovered with closed pupil but good perception of light.

Five lost vitreous and also recovered with anterior synechia, in one of these the lens was removed with a scoop and a good deal of iritis ensued.

Five perished by acute suppurative panophthalmitis.

The upward incision was made in every instance, with three exceptions.

Slight Iritis occurred in most of the cases in which anterior synechia was present, and also in several of those stated to have recovered without any serious drawback. Twice the lens was removed with a scoop without creating any serious mischief.

The numbers are rather disproportionate for instituting a fair comparison between this method and the former, but if the total number of each be divided into three classes, viz :

Good results.

Indifferent results.

Failures.

The good results including 1st, all those cases in which recovery ensued without serious complication. 2nd, cases in which iritis, &c., was not followed by closed pupil. 3rd, Loss of vitreous without other mishap. 4th, six cases of bleeding into anterior chamber, referred to above.

The indifferent results including all the remainder except those already spoken of as lost, it will be seen that there were—

For the Sclero-Corneal Operation.		For the Oblique Corneal Operation,	
Good.....	87 per cent.	Good.....	86.6 per cent.
Indifferent	5. 5 " "	Indifferent.....	6.6 " "
Failures.....	7. 5 " "	Failures.....	6.6 " "

Thus if great things may be compared with small, it will be seen that a remarkable similarity exists in the results of these two operations.

With regard to the flap and scoop operations, they were so few in number that it seems hardly worth while to do more than mention them.

In seven flap operations six regained useful vision, one left the hospital with closed pupil after severe iritis. Vitreous escaped during the operation twice; one of these recovered perfectly, the other suffered from hyalitis. The scoop operations, twelve in number, also for the most

part did well. Six recovered without any drawback except a small quantity of lens matter left in pupil in three of them.

Three suffered from slight Iritis.

One from severe Iritis.

Two lost vitreous, but left the hospital progressing favourably.

There is such a vast array of circumstances capable of influencing the result in cataract operations that even the bare mention of them would occupy more of your valuable time than I could ask you to spare, but if the statistics I have just given serve to show anything, it is that the mere choice of operation is on the whole of no great moment, and I have been surprised to find so little difference in the gross results obtained by different methods, as recorded by other observers. For instance, in Arlt's statistics the variations from year to year in any of the three operations which he has practiced most extensively, are often much greater than the difference between the sum total of results in each. Nor is the fact of having obtained 5 per cent. more good results in the total of his linear operations to be regarded as conclusive evidence in favor of this method, since most of his flap operations were performed between 1856 and 1865, but all his Gräfe extractions were done between 1866 and 1873, during which time, according to his own statement, great improvements have been made in his ophthalmic wards.

If, then, there is nothing much to recommend one operation more than another for universal application, how are we to obtain better results in future?

I think there are at least three ways open, to further improvement.

The first is by paying greater attention to the details of of the operation chosen; for instance many cases are prevented from doing well by the presence of lens matter, blood, &c., in the eye after the operation has been completed. Then there is the great question of anæsthetics. Some operations fail because the anæsthetic works badly, others,

again, because the patient is too unsteady without it. It would be highly desirable to find some less objectionable anæsthetic than those at present in use, or failing in this, to establish more definite rules for their administration.

Second, by choosing the most suitable operation, for it is certain that some eyes are adapted for one method and some for another. There is undoubtly more risk of losing vitreous by the Gräfe, or the scelro-corneal extraction, than by the oblique-corneal, hence, we should choose the latter where we have reason to suspect a weak zonula. A rigid pupil and a large hard lens call for an iridectomy. In such cases we should not choose the oblique corneal, or if determined to adopt this method, it would be safer to perform a preliminary iridectomy a few weeks before the extraction. The linear method is less likely to be followed by necrosis of the cornea, than where a large corneal flap is formed, hence it should have the preference where there is reason to believe the healing power is defective. The oblique corneal is most easy of performance and will therefore better suit an unskilful operator, moreover, it can be done without the aid of an assistant. These are only some of the points to be taken into consideration, but there are many others.

Delayed union is, I am inclined to believe, more commonly met with in the sclero-corneal extraction as figured in the diagram, than in either of the two other incisions. This is proably due to the narrowness of the surface in coaptation at the upper part of the incision caused by cutting too much forward, and to the fact that the upper lid no longer serves to press the cut surfaces together.

Third, in the matter of after treatment, for here there is is still a good deal of difference of opinion. Some surgeons prefer to use no bandage after the operation, others keep the eyes covered with charpie or cotton wool and an elaborate bandage for several days. Some prefer dry dressing, others moist. When to interfere, if the case is not doing well, and to what extent interference is justifiable, often become

most anxious questions. For my own part I believe that excessive reaction can be controlled with something like absolute certainty if combated in time by local depletion and sedatives.

Direct interference with the eye itself, is, I think, only justifiable under exceptional circumstances. Thòugh I admire the boldness of those who make an inspection by focal illumination twice daily, and hope that this zeal in the cause of science may be rewarded by the discovery of improved means for regulating the after treatment, I prefer for the present to act upon the principle of letting well enough alone for a few days at least,

I have more than once succeded in achieving very good results in apparently desperate cases of suppurative iritis after extraction, by means of an apparatus which I have had constructed for supplying cold or heat in a uniform manner to the eye. One such case thus treated by warm fomentations recovered speedily, and ultimately obtained vision = ⅜.

I am often asked which is the best operation for the removal of cataract. The question is difficult to answer; for although I should give the preference to a scleral extraction with iridectomy, very like that of Von Grâfe, if restricted to a single method, there are undoubtedly many cases better adapted for some other kind of operation. I am therefore of the opinion that in the long run the greatest measure of success will fall to the lot of those who make themselves thoroughly familiar, not with one method of extraction, but with several, and who by taking into full consideration the details of each case are led to form a correct judgment in regard to the course to be pursued; just for instance as in general surgery, no one would think of advocating circular amputation to the exclusion of all other methods, or lithotomy to the entire exclusion of lithotrity.

The public generally, seems to be under the impression that a very advanced age is a strong contra indication to operative interference in cases of cataract.

This belief is not by any means confined to the laity, but exists to an almost equal extent amongst medical men, and is often the means of witholding from the aged and infirm the priceless blessing of that sense which most of all serves to sustain the waning powers, and cheer the evening of life. In conclusion, let us hear what our statistics have to say upon this point.

Of the 510 cases, 116 were 70 years of age and upwards. In 94 of these the result of the operation was good, in 12 indifferent, in 10 it was a failure. The indifferent results and failures were in great part due to some mischance during or after the operation, and in so far only attributable to the advanced age of the patient as that such persons are more lacking in self control than in earlier life. I have more than once seen useful vision restored by operation in persons bordering on niney yeaits of age.

A Case of Acute Glanders. By JOHN REDDY, M.D., L.R.C.S.I., &c., Physician to the Montreal General Hospital.

(Read before the Medico Chirurgical Society, Montreal, 1876.)

On the 14th November, 1875, I was requested to see John G——, practical engineer, a stout, well-built man, who has always been in the enjoyment of good health. For over a year past he was engaged at the Moisic Mines as General Superintendent of the Mechanical Department, and was never ill during that time. States that he left the mines on the 3rd November, 1875, in good health, and arrived in Montreal on the 5th November, 1875, and was then, as he thought, in good health ; but on the 9th he felt poorly, experiencing peculiar sensations about his limbs and body not of a painful character, but producing a kind of uneasiness. As they did not last long, he paid no particular attention to them. These continued more or less to the 13th (yesterday), when he was seized with a severe rigor high fever and profuse sweating. I found him in

bed, lying on his back, with a disinclination to assume any other position; his face was slightly flushed, had headache and hot skin, pulse 100, and temperature 100 2-5, tongue clean. His bowels were regular, but he complained of shooting pains on the outside of his arms and legs and right scapula. He had much thirst, and was constantly sipping black currant-jelly water; there was neither cæcal gurgling nor tenderness. His lungs were unaffected, but his respirations were hurried. His intellect was perfectly clear. With the above history, I predicted that most probably it might prove to be typhoid fever, and prescribed a mixture with liquor ammonia accetatis, cold evaporating cloths to his head, milk and beef-tea diet.

15*th*.—Found him a little better to-day: tongue clean, pulse 100, temperature 99 3-5. Other symptoms very much the same as before; the headache had returned. He also complained of soreness and dryness of throat; but unless slight congestion of the tonsils and mucus membrane of the throat generally, there was nothing else to note in that region. His bowels have not been moved to-day.

17*th*.—I was to have had a message yesterday if any change had occurred. Receiving none, called this morning, when I found him bathed in the most profuse perspiration I have ever witnessed. The following account was then given me:—About midnight he had a severe rigor, followed by a period of chilling, severe sensation of cold, which lasted over two hours; then his skin became burning hot and dry, which lasted nearly three hours; and lastly, the intense profuse sweating I found him in commenced. I now banished the idea of typhoid fever, presuming I had to deal with intermittent, as he reminded me that eighteen years previously I had treated him for an attack of tertian ague. I immediately ordered quinine in mixture when the fit had subsided—the first dose to be twenty grains, subsequent ones five grains—every four hours afterwards, till relief came.

19*th*.—I again called. He had another lesser attack yesterday, and to-day he drew my attention to a globular swelling, about the size of a goose-egg, under right clavicle extending down to margin of third intercostal space. This had arisen through the night; was exceedingly painful and tender to the touch. I ordered it to be painted with tincture of iodine, and warm linseed meal poultices applied.

20*th*.—A very slight chill occurred during the night. Pulse 92; temperature 99 1-5. He complains very much to-day of weakness and pain of a general character, throughout his body and along his arms and legs. He has much thirst and occasional fever. The poultices and iodine paint have relieved the painful swelling on the chest; he drinks the black currant water, and takes milk and beef tea freely. Diminished his quinine to-day to two grains every fourth hour.

22*nd*.—Pulse 95. Found him sitting up in an arm-chair in his bed-room. Complains of very great weakness; is perspiring most profusely. The bowels are regular. His tongue is slightly furred, and his throat would feel dry but for the currant water. The swelling on the chest has nearly subsided, and is no longer painful. Ordered a tablesponful of port wine every three hours.

24*th*.—Pulse 100. Still complains of the great weakness, and prefers lying on his back; is very thirsty. Has had no rigors the last two days, but the perspirations are unabated. He looks very ill. A new feature is present to-day. Along both arms from the shoulder to the wrist, and from the hips to the ankles, and on the calves of the legs, say about one inch apart, on rubbing over the parts, hard, well defined swellings may be felt, projecting somewhat from the skin, and about the size of very small filberts. They are most painful to the touch, and here and there small dusky, dry erythematous patches exist. There is no abrasion, and the hard tumours do not exhibit any sign of suppurating. From the tip of the right shoulder, and along the supra scapular region, there is to-day another globular swelling, a

little larger than that which existed on the chest, and equally prinful, for this I ordered the same treatment, poultices and Tincture of Iodine. I felt very much puzzled as to the nature of the case, and again entered upon its history, but failed to obtain any fresh light. From the debility and other symptoms present I began to fear that my case would, after all, turn out to be Trichinosis, but he had not eaten pork for a considerable period, and therefore I had to abandon this idea. I examined the urine this morning, it contained no albumen. Substituted brandy for wine.

25*th*—Pulse 104; temperature 102. He was sitting propped up in an arm chair when I came into his room. Said he felt a little better to-day, but his debility was most marked and perspiration very profuse. The tumour in the scapular region is much relieved by treatment. Continue nourishment egg and brandy as before.

27*th*. Pulse 110; temperature 101. Complains of most severe pain in his arms and legs; can hardly bear to be touched, and wishes to lie undisturbed on his back; seems very much depressed in spirits. The tumor over the scapula mentioned on the 24th has subsided, but a similar one to it has just made its appearance equally large, occupying the crown of the head and a portion of right parietal bone; it is very elastic and most painful to the touch. Ordered the same treatment, poulticing and Tincture Iodine. To-day I observe pink streaks (angeiolucitis) along the line of the lymphatics, passing between or along the line of the hard knotty tumors. These I also ordered to be painted with Tincture of Iodine. Treatment to be continued, and support of every assimilable kind.

29*th*.—Pulse 120; temperature 104. He speaks languidly to-day; complains of very great prostration; is very thirsty, and lies altogether on his back. The tumor on the head has almost disappeared, and the tincture of iodine has somewhat soothed the pains in his arms and legs. The lymphatic inflammation has also faded considerably, but the tumours on the head present no physicial difference.

30*th.*—Pulse 120; temperature 103. No change in the symptoms or disease since yesterday. My friend, Dr. Ross, was associated with me to-day in consultation, and experienced the same difficulty as I had in being able to establish a diagnosis or give a name to the disease, only recognizing its generally septicæmic character; a few dark patches of an erythematous character, are here and there observable on the arms and legs and one on the right knuckle between first and second finger which is the largest.

Muriated tincture of iron in thirty drop doses has been added to the quinine mixture to-day, and supporting the system by every available method advised.

Dec. 1*st.*—Pulse 120; temperature 102$\frac{3}{5}$; debility very manifest, and the prespiration profuse. To-day a number of vesicles have appeared on the arms and shoulders, which in the course of a few hours quickly became pustular. They are not unlike small-pox pustules, in the centre the appearance is like thin pus, around this there is a fluid like lymph and a base or margin of a pinkish color. They make their appearance in crops few in numbers, as described above, in the course of four or five hours. I cannot say that the treatment has had any special effect in causing any alteration in the disease.

2*nd.*—Pulse 120; temperature 102$\frac{1}{5}$. Complains to-day of unusual prostration and of much more pain in the joints and throughout the body.

Four o'clock p.m.—Pulse 120; temperature 103$\frac{1}{5}$. No change this morning. The pustular rash was on his face, one large one not unlike a chancre on the side of face near ala of nose on the right side, and a few fresh ones have also appeared. It has also come out on the surface of some of the inflamed patches. Ordered to stimulate freely, &c.

When just about leaving the house his wife stopped us, saying that her husband and she had been considering over his case and its probable cause, and they wished to state that when coming up from the Moisic Mines they had on

board 180 passengers and 14 horses. Ten of these horses were sick with weakness and running from the nose accompanied by a very foul smell—some of them had been sick since the month of June. He was obliged to take care of them himself all the way up. Two horses died and were thrown over-board, and on two occasions he was made to vomit by the stench, on first going into the horses quarters in the morning. We here at once found the missing link supplied, and the nature of the case was now apparent, that it was a case of "acute glanders," and the tumors were farcy buds, now rendering the prognosis most doubtful.

Dec 3rd.—Pulse 120 ; temperature 103 1-5. No change in our patient's state. I examined his urine this morning, it was darker than natural, without deposit ; boiled with nitric acid it turned a beautiful blood red colour, and on settling deposited about ten per cent of an albuminoid substance. There were no salts nor casts, and but few epithelial cells.

4. P.M.—Pulse 120 ; temperature, 103 3-5°. There is very great prostration, most marked as he lies on his back. He suffers greatly from thirst. Complains of pain under his right scapula, has a short cough, and seems oppressed in his breathing. He was too weak to sit up, but on turning him over on his right side dullness on percussion all over right base to centre of scapula exists, accompanied by coarse pleuritic friction sounds, which nearly altogether mask the pulmonary crepitations which may occasionally be heard.

4th.—On calling to-day we found that our patient had died, at 2 o'clock, p.m. After our visit last evening the chest symptoms became worse, his breathing more oppressed ; his strength also began rapidly to fail. About midnight a yellowish fœtid discharge commenced to flow from his nostrils, low, muttering delirium set in, and thus he died. There was no post mortem.

Glanders was known as early as the fourth century, and

was described (though vaguely) by Apsyrtis in the time of Constantine the Great. Its contagiousness was first recognized in 1664, and fully established by Viborg in 1797; and as lately as the beginning of the present century a great difference of opinion existed in France as to the communicability, the Veterinary School of Alfort maintaining its non-contagiousness, that of Lyons the opposite. In 1849 a French veterinary surgeon, Barthelemy, strongly insisted upon its contagiousness, and it was shown beyond doubt, that at this period the yearly mortality amongst the French army horses was something incredible. It had been sought to connect Glanders with Syphilis, Diphtheria, Pyæmia and other kindred diseases, but the researches of Virchow in 1855 to 1863, assigned Glanders to the class of "Granulation tumours"—his views were confirmed by the brilliant researches of Leisering. Experiments have been made at various times to excite the disease in horses by inoculating with pus and other like substances, but without success—while the smallest point of pus, or even sweat from a glandered horse placed in the nostril of a healthy horse will excite the disease; a few exceptions, however, have occurred. It is a very infectious disease, and the term "volatile infectious matter" has been used but not to infer that it is gaseous, but light and corpuscular so as to be carried a considerable distance. The nostrils, larynx and lungs form the direct channels by which the disease enters; it is also communicable where a wound or abrasion exists. The virus when exposed to a temperature of 103 Fahr. ceased to exert any infecting power. A parasitic growth, named Puccinia, a supposed cause, has been discovered by B. Langenbeck; it is found, however, in the nasal secretions, and in the fodder, but lower organisms have been discovered. Bacteria, found in men and horses affected with glanders, Kiener, Hallier, Zurn and Riendfleisch all describe this parasite as existing in the blood, pus, ulcers and abscesses of the lower animals. Asses, mules and sheep are most susceptible of this disease, and in the order mentioned. It prevails alike

in hot and cold climates. A severe epizöotic occurred from 1808 to 1816, which carried off 20,000 horses. In Hungary in 1812, 12,000 horses died, no precautions being taken as the disease was not even suspected to be contagious.

The disease manifests itself in two distinct forms, which are, however, only types of one and the same disease. The first attacks the nose, lungs and neighbouring glands, and is what is called "Glanders Proper." The second affects the absorbents, or lymphatics of the skin of the extremities, or trunk, causing a corded knotty condition known as "Farcy," or "Farcy Buds." The disease appears in from three to six days.

Youatt gives as the earliest sign of the disease: Nasal discharge; first limpid, then sticky and gluey as the disease advances; lastly very offensive. Farcy, he describes as has been already stated.

Formerly the nodules of farcy were considered to be deposits or exudation from the blood, but Virchow, in 1854, demonstrated their neoplastic origin, which view was confirmed by Leiserurg, Foster, and others. In horses a symmetry exists in the manner in which the lymphatics are affected, and in my case the same character obtained.

In man, the two diseases are generally associated, commencing as acute glanders, and followed by farcy, or *vice versa*, and is most frequently attended with an extensive tubercular eruption of the skin of an exanthematous character.

The commencement of the disease is characterized by wandering pains, much fever, great depression, chills and pains, that might easily be mistaken for rheumatism. A fever not unlike typhoid is present, followed by rigors and most profuse, perspirations later on the eruptive stage sets in, which in chronic cases may be delayed for weeks. The most prominent, however, is the glanders eruption, consisting of crops of pustules little differing in appearance from variola. Virchow, however, states that they do so in this respect; they consist of a firm tenacious deposit in

the corium of the skin of a whitish or yellowish material over which the epidermis passes, after a longer interval softening takes place, and small holes are left filled with debris. They very often form in the calf of the leg and on the back, forming very hard masses which frequently escape notice till after death. The discharge from the nose may be late in coming on, being often more apparent than real, as should the patient be in the recumbent posture it may flow down the posterior nares and thus escape detection. The constitutional symptoms near the close are very severe and attended with great exhaustion. The duration of the disease in its acutest form is from three days to three weeks.

In the above summary of the symptoms and signs of this disease, you cannot have failed to recognize the great similarity that exist between them and the case I have brought under your notice

Pathological appearances onthe mucous membrane of the nasal cavities and throughout the lungs viewed by the naked eye, are deposits described as of a tubercular appearrance like miliary tubercles, but under the microscope they merely consist of vascular delicate stroma, filled with round cells like pus cells.

The infiltrated form of glanders (or diffuse form), in many respects, resembles ordinary inflammatory processes having an excess of cellular elements and gangrene of the tissues, recognizable by superficial formation of ulcers, and also of cicatricial tissue ; and in the veins of the erectile tissue of the septum nasi extensive thrombi in these vessels occur, which gave rise to the idea that acute glanders is nothing more than phlebitis of the nose, which idea was exploded by the researches of Virchow. The lungs are in this form particularly liable to inflammatory exudations, more particularly in their anterior and lower edges ; but this state is oftener met with in the chronic or subacute form of the disease.

Virchow also asserts that the lesions of the lungs form,

as a rule, the final phenomenon of the disease. Bollinger denies the correctness of this opinion, and opposes it; but in my case the pleura and lungs were only invaded at the close, in this instance substantiating that statement.

The deep interest which attaches to this case and its rarity, as well as the great difficulty that for several days occurred in arriving at a correct diagnosis, has induced me to fully report all the details I could glean, even at the risk of perhaps occupying too much of your valuable time. I have looked into the history of glanders, and have consulted several authors. Some give it but a passing notice. I am indebted to Bollinger for his exhaustive article on the subject in *Ziemssen's Cyclopœdia*, vol. 3, on Chronic Infectious Diseases; also to articles of a similar kind in *Reynold's Practice of Medicine* and *Holme's Surgery*.

I am not aware of a similar case being recorded in any of our periodicals here; but I find, on looking over the Mortuary Returns for 1875 of the city and suburbs of Montreal, three cases are reported as having occurred,—and it is much to be desired that the medical gentlemen who have observed the other two cases may also place them on record.

Since reading the above I have discovered, on looking over the British American Journal, for 1845, vol. 1, Edited by A. H. Hall, M.D., and R. L. Macdonnell, M.D., a case of Glanders reported by the late Dr. Smallwood, of Isle Jesus, which was recognized as a case of acute Glanders from the very commencement; it ended fatally, and was contracted by attending to glandered horses.

Montreal, February, 1876.

TRANSLATION.

The treatment of Polyarthritis Rheumatica by Salieylic Acid. By Dr. Stricker, Physician to the Charité Hospital, Berlin.

For several months past all the cases of acute articular rheumatism, with well marked local disturbance, taken into the Charité Hospital under Prof. Traube, have been treated

with Salicylic Acid. In every instance not only was the temperature reduced to the normal standard within 48 hours, but what is far more important, all the local phenomena such as pain swelling and redness of the joints were completely relieved.

This mode of treatment is efficacious only in the class of cases just indicated; it is of no avail unless swelling and redness of the joints exists.

In order to insure success the following rules for administering the acid must be strictly observed.

The Salicylic Acid must be pure; that is to say, it must be in the form of glistening white acicular crystals which are quite odourless and form a clear solution in water or alcohol. Impure Salicylic Acid is mueh more likely to act as an irritant to the mucous membrane of the mouth throat and stomach.

The powdered acid must be given in doses of from 8 *to* 16 *grains every hour.* It is best given in capsules. *It must be given till the affected joints can be moved without causing pain.*

To obtain this effect the quantity administered never exceeded half an ounce, and was never less than eighty grains.

There is no doubt it would be safe to administer more than 240 grains, since one patient took of his own accord, as much as 350 grains within twelve hours without experiencing the slightest inconvenience, on the contrary his tongue cleaned and appetite improved. The only toxic effects noticed in any of the cases treated were sweating, singing in the ears, partial deafness, and in a few instances slight hilarity.

Nothing definite can as yet be stated, in regard to the effect of salicylic on the secondary inflammations of rheumatism; most of the cases treated had already suffered from endocarditis. It is probable that after the cure has been effected the patient would do well to continue taking the acid in smaller doses, for a short time at least.

The details of five cases are given, but the course of the disease and result of the treatment was almost exactly the same in the remaining ten cases.

1. *Polyarthritis rheumatica. 3rd attack.—Complete recovery in twenty-four hours.*

R. W., æt 25, painter by trade, has insufficiency of the aortic valves. Was taken ill Dec. 6th, 1875, with swelling and pain in the left ankle joint; admitted into the hospital Dec. 10th. It is probable the heart affection, dated from his first attack of rhumatism in 1870, for he has been subject to palpitation ever since.

There was no evidence of recent endocarditis. The treatment was expectant until Dec. 13th, when the temperature rose to 104.9. Several phalangeal joints of the left foot, the left knee, shoulder and wrist became swollen and slightly reddened, and at the same time exceedingly painful.

Salicylic acid was now administered as recommended above. On the morning of Dec. 14th he had taken 80 grs. Most of the affected joints already presented almost a normal appearance. The patient could move his left hand quickly to and fro without the least inconvenience. There was still slight redness and tenderness on pressure at the inner side of the left knee. Salicylic acid was therefore continued till he had taken 150 grains. At nine o'clock the same evening all the joints were free from the disease. During the previous night, tinnitus, hardness of hearing and sweating had come on and had somewhat increased during the day.

He had not suffered at all from heat or dryness of the throat, difficulty in swallowing or nausea; nor was the epigastrium in the least tender on pressure. The patient remained a few days in the hospital, but without any return of the rheumatism.

2. *Polyarthritis rheumatica cured within forty-eight hours. Endocarditis, when admitted; this was not influenced by the treatment, and gave rise to slight insufficency of the mitral*

valve. Pericarditis became developed at the outset but disappeared under the use of the salicylic acid.

O. R. æt 16, waiter.—Admitted Oct. 25th, 1875, was taken ill on the evening of the 20th. The disease is said to have commenced with a rigor. On the following day both hip joints, and soon afterwards all the large and several of the smaller joints were attackted with violent rheumatic pains.

On admission all the large joints of the lower extremities were considerably swollen and very painful, more particularly, those of the right side. There was also endocarditis of recent origin. Salicylic acid was administered without delay. The following morning at 8 o'clock the patient had taken 80 grains. Both ankle joints and the left hip joint could already be moved freely without exciting pain. The conditon of the knees and right hip was not materially changed. Auscultation now revealed for the first time, a friction murmur which coincided with the movements of expiration and inspiration; it was best heard to the left of the sternum on a level with the fourth costal cartilage, and was undoubtedly due to an affection of the pericardium. Under the continued use of the salicylic acid there was so much improvement that on the evening of the 27th, (240 grains having been taken) patient could move all the joints readily; there was no swelling, and no pain on pressure. The friction murmur had also disappeared. The medicine had caused tinnitus, hardness of hearing and sweating.

The area of præcordial dullness and the heart sounds remained unchanged. Patient was discharged about the middle of November completely cured, with the exception of a slight mitral insufficiency.

3. *Subacute polyarthritis rheumatica with very slight increase of temperature. Acute attack whilst in hospital, rapid increase of temperature together with great swelling and pain in certain large joints. Cure within twenty-four hours.*

H. A. æt 34 locksmith.—Came to the hospital Dec. 9th,

on account of pain in many of the joints, for which he had been treated at home with tincture of iodine, blisters &c., applied to the affected parts. The condition of the joints did not seem to invite the use of salicylic acid and the patient was put upon a solution of nitrate of potash which he continued to take till Dec. 12th.

On the morning of the 12th the carpo-meta carpal joint of left thumb was found to be greatly swollen. The left thumb was swollen stiff and exceedingly painful. The right wrist joint was beginning to swell. This swelling involves the whole of the back of the hand, which is also very much reddened. The fingers can be moved but very little, the wrist joint not at all, on account of intense pain caused by any attempt at movement. Circumference of right wrist joint 3 cm ; greater than of left. The knees, shoulders and elbow-joints are also painful, but less so than the wrist.

Patient now commenced to take salicylic acid in doses of 8 grains every hour. At four o'clock of the same day he could move most of the affected joints with much greater facility. The swelling, &c., of the left thumb was greatly reduced. The thumb could now be moved tolerably freely, as could also the right wrist, which was also less red and tense, but still swollen to about the same extent.

The amount of salicylic acid taken was then 60 grains. The following morning he had taken 120 grains of the acid and was entirely cured. In this case no heart complications occurred.

4. *Polyarthritis rehumatica. Great local disturbance. Cure within twenty-four hours.*

E. D. æt 21, barmaid.—Admitted Dec. 15th, after having been confined to her bed fourteen days ; was immediately put upon the salicylic acid treatment. She was then suffering from high fever, loss of appetite and violent pains in the left wrist and both knee joints, which were greatly swollen, red and tender to the touch. The joy of this patient is better imagined than described, when after taking nine doses of the acid of sixteen grains each at intervals of

one hour, she found herself completely restored to health. No tozic effects of the medicine occurred.

5. *Polyarthritis rheumatica. Two attacks. The first cured in forty-eight hours. The second in twenty-four hours.*

W. T. æt 36, journeyman tailor.—Was suffering when admitted from an acute rheumatic inflammation of all the large joints, and nearly all the small joints of the hands and feet. He took the acid, but not according to directions, so that from the evening of the fifth to the evening of the seventh only 130 grains had been administered. Notwithstanding this I found him free from pain on the morning of the eighth.

Patient left his bed Oct. 9th, but on the 17th a fresh attack occurred, in which there was great increase of temperature, and severe inflammation of the right wrist and knee joints. On Oct. 18 he took 80 grains of the acid which sufficed to effect a cure. He was discharged from the hospital, well, on Oct. 28th.

F. B.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Suppurative Pyelitis—Sinuses Opening Internally, and communicating with Pelvis of Kidney. Under DR. FENWICK. Reported by J. D. CLINE, A.M., M.D.

S. L., æt. 34, labourer, was admitted into hospital on February 1st, 1876.

Two years ago his trouble began with pain in left loin, and subsequently frequent micturition and passage of pus and blood occasionally with his urine. A swelling occurred in the loin, which was opened fifteen months ago. A drainage tube was introduced while he was in another hospital, and there has been a discharge from the two openings ever

since. At present he has to make water every hour at least, and more frequently at night. The pus in his urine is very thick, ropy and greenish. The patient is much reduced in flesh and weight; appetite pretty fair. One opening is about 2½ inches above the middle of the crest of the ilium, and the other 1 inch in front of the anterior superior spine of the ilium. These were found to communicate with each other, and a probe through the upper one could be passed down very deeply. Dr. Fenwick judged from the character of the pus in the patient's urine that it came from the pelvis of the kidney, and also from the history of the case, the directions of the sinuses and the fact of their not having tended to heal in so long a time that the sinuses communicated with the pelvis of the kidney. The Doctor introduced a drainage tube, and ordered for the patient Iron and Quinine, Cod-liver oil, and a nutritious diet, with one pint of ale daily.

The patient's condition remained apparently the same till the 15th of February, when he complained of a sore throat, and at the same time rapidly became very much prostrated. As there had recently been a case of diphtheria in the hospital, his throat was carefully examined lest this should be another. No trace of diphtheritic membrane was found. The tonsils and soft palate were red and swollen. He was ordered a gargle of Tinc. Ferri, Mur. ℥ij to aquæ ℥viij and the following Mixture:

℞ Pot. Chlor. ℥i; Tr. Ferri. Mur. ℥ij; Quinae grs. xii; Aquæ ad ℥vi; of which he was to take a tablespoonful every three hours. He was also ordered 6 oz. brandy daily. The soreness of his throat was much relieved next day, but he gradually became weaker, and died on the 17th.

Autopsy 12 hours after death,—Cadaveric rigidity well marked. Body extremely emaciated and anæmic.

Lungs contained several nodules, which were caseous in their centres. Heart flabby. Valves healthy but coronary arteries very hard. Liver very much enlarged, weighing 6 lbs, presenting the appearance of amyloid disease of that

organ, and yielding the characteristic reaction with iodine. Spleen large and hard, weighing 9 ounces, also amyloid. Right kidney large, weighing 8 ounces, and amyloid. The arteries also hard and rigid. When the bladder was removed and the left ureter was dissected up to the kidney, the latter was found to be firmly adherent all around by inflammatory tissue. In removing it a portion tore near the entrannce of the ureter, and allowed some pus to escape. This vent was found to communicate with a sinus reaching through the muscles of the loin. This sinus was then opened up with the knife and found to lead to the external openings. The walls of the bladder were thickened. The bladder contained a quantity of putrid pus, and its walls internally were softended and sloughy. The ureter was as large as a man's finger and its canal very large. The pelvis of the kidney was filled with thick pus, and the pyramids were entirely broken down and their places filled with thick pus, and communicating with rent spoken of above.

Case of General Tuberculosis—Tuberculosis Uterus—Death from Meningitis—Autopsy. Under the care of Dr. Fenwick. Reported by J. D. Cline, B.A., M.D., Assistant House Surgeon, Montreal General Hospital.

Louisa Sovereign, aged 26, was admitted into hospital, Jan. 5th, 1876. She complained of a slight leucorrhœa, amenorrhœa and general dibility. She had been in hospital for the same thing eight or nine months ago under Dr. Reddy. At that time she was very emaciated and a very delicate looking girl. By examination with a speculum the os uteri appeared natural—perhaps small. The uterine sound was not used. At this time the patient suffered a good deal of pain in the back and tenderness over body of uterus. No enlargement of body was detected. A vaginal injection of zinc : sulph : was ordered her with rest in bed and a general tonic regimen. After two months treatment she improved very little, and was taken down to

the salt water by her friends. The pain had disappeared, however.

The patient was a small woman of very frail build, unmarried, and a virgin. No history of tuberculous taint in the family could be made out, but one of her sisters, was dwarfed by a curvature of the spine. When in hospital the first time she had no cough and her lungs were not examined. On her admission the second time she was much more emaciated than before and more feeble. Still the only thing she complained of was her uterine trouble. Nothing more was made out about her uterus than before. A vaginal injection of zinc : sulph : was ordered, and a tonic of iron and quinine. When she had been in hospital a short time the nurse called Dr. Fenwick's attention to a cough which she had, and on examination there were found evidences of tuberebcle and softening all over the lungs. The respiration was very harsh, creaking and leathery, with prolonged inspiratory murmur all over the chest and a few moist rales at parts. The note in percussion was equal on both sides but tubular. Dr. Fenwick ordered cod liver oil and a sedative cough mixture. On Jan. 26th the brain symptoms set in. She became sleeples, restless and nervous, starting every now and then and afraid to be left alone. On the night of the 27th this restlessness increased, and she would start frequently with a peculiar cry. I immediately suspected tubercular meningitis, and found at that time the macula cerebri of Trousseau well marked. Her bowels were constipated. There was no vomiting. On the third day after the appearance of these symptoms there was strabismus of of the right eye. She was gradually becoming comatose, and on the fifth day could not be roused at all and could scarcely be got to swallow a spoonful of nourishment. Her sphincters became relaxed. Before this stage she had complained of pain in the occipital region, and her head was constantly retracted. She gradually sank and died on Feb. 4th, at 11:15 p.m.

Autopsy.—Two hours after death the brain was first examined, and the ventricles opened before it was removed.

There were eight ounces of fluid in the ventricles, which were very much distended. There was no central softening, except in the septum lucidum. The surface of the brain was congested especially at the base. The membrane here was much thickened and opaque and studded with miliary tubercle in the central portion, as well as in the fissures. There were three or four purulent deposits under the membrane. There were several nodules of tubercle in the substance of the brain, varying in size from that of a split pea to that of a bean; one in the left thalamus opticus, one in the anterior lobe of right hemisphere at base, one in upper surface of cerebellum and another in the posterior and inferior part of left hemisphere.

The Lungs were found to be studded with tubercle of the grey variety in various stages of degeneration in parts. Nowhere was there a cavity larger than a bean. Nodules of tubercle were found in the capsule of the liver.

Kidneys were healthy.

The Uterus.—The body of the uterus, before removal, felt enlarged and soft, and was rather firmly fixed by peritonitic adhesions. On section after removal the cavity was found to be large—about 2 inches long by 1½ inches wide, and the internal surface presented a ragged ulcerated appearance, like the sac of an old abscess. It was of a dirty greyish color and covered with a tenacious discharge. Yellowish cheesy-looking projections extended into the walls of the uterus. The walls were soft and friable. The right wall particularly was so soft that a probe could be easily thrust through it. The whole muscular structure here appeared to be degenerated. The ovaries presented much the same appearance, ulcerated and degenerated internally. There was a cyst as large as a walnut on the right fallopian tube.

Remarks.—From the history of the case, there having been no evidences of tubercle in any organ but the uterus till recently, and from the post mortem evidences of the tubercle in the lung and elsewhere being recent while the uterus was in an advanced stage of degeneration, it appears that the tubercle must have been primary in the uterus.

Reviews and Notices of Books.

Annual Reports on Diseases of the Chest. Under the direction of HORACE DOBELL, M.D., Consulting Physician to the Royal Hospital for Diseases of the Chest, &c., &c., assisted by numerous and distinguished coadjutors in different parts of the world. Vol. 1, June 1st, 1874, to June 1st, 1875. London: Smith, Elder & Co., Waterloo Place, 1875.

We have acknowledged the receipt of the above work and at the same time drew our readers' attention to the plan which the author proposes to himself to follow, and desire to add now a few more words, to explain more fully the nature, of the contents and their value.

Dr. Dobell, who is already well known from his various writings, as one who has for a very long period devoted his attention to Diseases of the Chest, has for the purpose of compiling the work, been in communication with eminent physicians in every quarter of the world. It can readily be understood, therefore, what a large accumulation of material has been placed at his disposal. Indeed it would hardly be saying too much to say that every observation, investigation, or idea of any importance, which has been anywhere brought to light within the contained year, finds a place in these pages. Of course the field is an immense one, and includes considerations regarding a very large number of different complaints. Remarks and reports of cases are to be found bearing upon the pathology, etiology, diagnosis, treatment, mode of distribution, &c., of the tongue, tonsils, larynx, lungs, pleuræ, bronchial glands thyroid and thymus glands, heart, &c. In each section these are carefully arranged, condensed if necessary, and at the same time full references given, so that any given subject can at once be further enquired into by one seeking

the information. The book is also furnished with a very complete analytical index, so that all that in any of the sections bears upon any particular point, can be at once turned up and examined. It is these features in the book itself which gives to it the value it possesses ; because, from its nature, it is of course a book of reference, and it is so constructed as to render this as easy and ready as it is possible to be.

Thoracic diseases afford always and everywhere a very large proportion of all the cases we have to treat, and from the very serious, and often unfortunately intractable nature of so many of them, it behoves every scientific practitioner to keep himself well informed of all the rays of light which are from time to time brought to bear upon them. In accomplishing this he cannot fail to derive great assistance from this compilation of Dr. Dobell.

As we should necessarily expect, the greater portion of the book is taken up with extracts from the leading British Medical Journals, composed of the most interesting cases therein during the time specified, as well as of the most important papers, communications, and discussions which appeared in these journals.

We are glad to find our own country well represented by a report from the pen of Dr. R. P. Howard, embodying the reports of several interesting cases which had been published in our local journals, as well as an excellent paper by the same gentleman, upon the pathology of Tubercle, which was read before the Canadian Medical Association.

Chemica Coartata ; or, the Key to Modern Chemistry.—By A. H. Kollmyer, A.M., M.D., Professor of Materia Medica and Therapeutics at the Uuiversity of Bishop's College; Professor of Materia Medica and Pharmacy at the College of Pharmacy, &c. 8vo., pp. 99. Printed and published by J. Starke & Co., 54 St. Francois Xavier street, Montreal, Canada.

This is a convenient and handy little book of reference containing a large amount of information ready at a

moment's notice, and easy to be reached, and is given in short, terse sentences, intended, as the author says, to be adapted to the wants of students to refresh their memories before examination, and others who have not time sufficient to devote to the searching through larger works. There is a great deal that is useful in the work before us, but we do not quite like the classification of the metals adopted by the author,and think that a classification based more upon their chemical relations to one another, would have been better. As the author classifies them as monads, dyads, &c., he brings together an incongruous mixture of metals, having no bond of union, as the introduction of argentum with the monads, with which it has no relation in common; the characters of the other monad metals are all in relation and might be in a group by themselves, whilst silver would more properly belong to a group of the noble metals.

The potassium group,or group of the metals of the alkalies, are all soft, easily fusible metals, oxidizing readily at all temperatures in the air, and decomposing water at all temperatures—forming freely soluble oxides, which readily combine with water, and form hydrates, from which heat alone will not drive off the water, and their oxides can not be decomposed by heat. These oxides rapidly absorb carbonic acid. The sulphides of these metals are soluble; whilst silver and the noble metals do not oxidize in air; their oxides do not form hydrates; their oxides do not absorb carbonic acid; their hydrates can scarcely be dried even with great care, and their oxides are reduced to the metallic state by heat alone.

Their sulphides are insoluble.

Similar objections hold good in the other group; among the Dyads,—copper, lead and mercury have no relation to Calcium, Barium and Strontium.

In the Triads: Gold has no relation to Alluminum.

So in the Tetrads—Iron, Nickel, Cobalt and Manganese have no relation to Platinum, &c.

The Pentads do come together better, but among the

Hexads, Molybdenum and Chromium are not naturally associated. There are some things we should like to see a little more fully explained, and some others which we must take exception to. Water is usually described as a colourless not bluish fluid,—whilst Iodine is usually said to be possessed of metallic lustre. Under the head of tests, we find numerous omissions of good useful tests,—such as the omission of the nitroprusside of Sodium as a test for sulphur, after first converting any sulphur present into an alkaline sulphuret by fusion on charcoal in the deoxidizing flame of the blowpipe, to reduce any sulphate to the condition of sulphide lixiviating the residue and then applying the nitropruside.

The precipitation of Boracic acid by Hydrochloric or sulphuric acid in a strong solution of a borate. The fact that silicic acid dissolves in a sodic carbonate bead, before the blowpipe with effervescence and evolution of carbonic acid, rendering the sodic carbonate bead transparent when cold as well as when hot.

There are other tests the absence of which we notice and suggest that the author should add them:

Under the head of Potassium, the carbazotic acid test is scarcely less delicate than the Tartaric. The introduction of "Chrome yellow cakes at 80°," under the head of Properties, on page 25, of Potassium tetroxide is probably a typographical error, as chrome yellow is a lead salt.

We should fail to recognize the metal Sodium from the Properties on page 39.

Whilst we think that so largely used a preparation as Sodium Hydrated Oxide deserves a larger share of notice than is awarded it, it might have been honoured with a line to itself, and a little more information about its manufacture.

Also under the head of Borax, its old commercial name of Tincal might have been given, and some of its uses as in soldering, and its property of disolving metallic oxides, and hence its use in the Laboratory to form beads before the blowpipe, for testing metallic substances and their compounds.

Under the test for ammonia we should have expected to find that its vapour was aklaline, and that any of its salts warmed with Caustic Potash, Soda, or Lime, yield a vapour with alkaline reaction to litmus and odour of ammouia,—the only alkali volatile at ordinary temperatures, and also that the yellow precipitate formed by silver nitrate was soluble in excess of ammonia.

Under tests for Silver, we should have expected to have the metallic globule obtained on charcoal with carbonate of soda and a blowpipe, characterized as malleable.

Under the tests for alumina we must take exception to the statement that any salt of alumina with cobalt nitrate gives a characteristic blue bead with the blowpipe; before the blowpipe on charcoal in the oxidising flame, salts of alumina leave a white infusible residue of alumina incan descent when in the flame, and which residue, moistened with a solution of nitrate of cobalt, and reheated in the blowpipe oxidizing flame gives a beautiful blue colour to the infusible residue, but does not form a bead.

Under Uranium Salts :

"Borax and Phosphorous Salts with Salts of Uranium will form a green glass," we presume is meant. Borax or Microcosmic Salt, with an Uranium Salt will give a yellow not "green" bead. No mention is made of the colour of the Borax bead formed with Nickel Salts. The use of cobalt in the formation of Smalt blue is omitted, and also the colour of its Borax bead, before the blowpipe.

Under the head of Antimony, Sulphuretted Hydrogen is left out as a test, although it is a test of the group of metals precipitated by that reagent in acid Solutions.

Also the fact that that sulphide is soluble in excess of Sulphide of Ammonium. The same omission occurs as solubility of Arsenic sulphide.

One of the chief characters of Bismuth salts, that they are precipitated by large dilution is not mentioned whilst a black precipitate by sulphuretted hydrogen is given as haracteristic. We thought that lead, copper, silver, &c.,

were also precipitated by the same reagent, the same colour, and under the same circumstances.

There are some other matters we think might be improved.

The latter section devoted to organic Chemistry is very concisely written, and conveys a very good idea of the arrangement of a very intricate subject, altogether we can commend the book to the class for whom it was written. The type is clear, legible and distinct, and for a work of the sort is remarkably free from typographical errors ; we think the shape might be made more in consonance with most libraries, and trust the author may reap a rich reward for his labours in endeavoring "to stimulate students and "others to a more thorough investigation of this noble science."

Periscopic Department.

SURGERY.

Curious case of Mutilation. By Oliver Penfold, M.R.C.S., Eng.

This occurred some months ago, and created a considerable sensation at the time, from the mysterious circumstances surrounding it. As I have not found any similar case mentioned in the text-books I have consulted on the subject, I think it is sufficiently unique to be recorded.

The patient a girl 18 years of age, employed as a barmaid at a hotel, stated that she had washed her hair at ten o'clock at night, and went to bed in an occasional bedroom, not her usual one. It was in a position fairly accessible from the street. She said that she awoke about 3 a.m., and noticed two men covered with crape bending over her and cutting her hair off, her mouth was gagged by a comforter placed over it, and her hands held by the wrists.

She endeavoured to scream, and shortly afterwards the candle was blown out and the men left. She then ran out from her bedroom in her night dress, and rattled a locked door near her uncle and aunt's bedroom, screaming lustily. Her uncle soon came out and found her in a greatly excited state, and crying out that her hair had been cut off. Search was immediately made, but neither the persons alleged to have committed the outrage nor the hair was to he found. I did not see her until some hours afterwards, but her uncle said that the hair had been hacked off irregularly, so as to expose the scalp more or less in different parts· A barber had been sent for, and he had shaved the middle of the scalp, leaving a tonsure of short black hair about two inches long, and over all he had placed a wig of false hair. The shaved scalp was studded with the bases of pimples, whose apices had been removed by the razor. It was a little puffy, and amongst the short hair were a few pimples, presumably like those on the shaved scalp. There were two swollen glands, one on each side of the neck, about the middle of the sterno-mastoid muscle. No marks of violence could be seen on her lips or wrists. She is quite capable of resistance. She trembled greatly while being examined, but told her story in a straightforward manner. She suffers from menorrhagia, and frequent headaches, and is in the habit of sleeping with her face covered by the bedclothes, and is very hard to arouse from sleep. She bears a good character and is habitually temperate. Six years ago, after a fever she had her head shaved. She had fine black hair. On one occasion she walked in her sleep from one room to another. Her sister is a somnambulist. No spite was known to exist against her. The servants who slept in adjoining apartments did not hear any noise before she screamed during the night. The bedroom was examined. No traces of a struggle were visible, and no hair could be found on the pillow or upon the bedclothes. She had borrowed a blunt pair of scissors before going to bed. In front of the looking-glass on the dressing table cover,

was a good deal of short black hair, and there was some on the floor close by.

I believe that she cut off the hair herself, wishing to gains ome notoriety, but finding herself greatly disfigured, she became frightened and made all the disturbance.

Sandhurst, Oct., 1875.

Australian Medical Journal.

On a case of Osseous Tumour, removed successfully, with Antiseptic Precautions, from under the Ligamentum Patellæ. By THOMAS ANNANDALE, F.R.S.E., Surgeon to the Edinburgh Royal Infirmary and Lecturer on Clinical Surgery.

The following case seems to me well worthy of a special report, for two reasons: first, from its great rarity; and, second as an illustration of the value of antiseptic treatment in operations on or near important joints.

D. D., aged 62, was admitted into my wards on the 19th September, last. Three years before his admission, he observed a small swelling at the lower part of the anterior aspect of his right knee-joint, and since then this swelling steadily increased in size, and from its bulk lately became troublesome, and interfered with the proper movements of the joint.

An examination determined the existence of a tumour on the anterior aspect of the joint: it was of the size of two closed fists, was hard to the touch, and was circumscribed and free on all sides except at its base, which appeared to have a firm attachment to the head of the tibia. The tumour when grasped felt quite fixed to the bone when the knee was flexed; but as. in the extended position of the joint, it admitted some lateral movement, it was evident that no real connection to the bone existed. The patella was displaced upwards and inwards, and could be felt immediately above the tumour. The movements of the joint were limited, especially that of flexion. On September 22nd, I exposed the anterior aspect of the tumour by a free incision carried along its outer aspect, and a second transverse and smaller one in a direction inwards across the front of the knee. The first incision was made down to the tumour, in a direction parallel and external to the ligamentum patellæ and patella. The second one was superficial, and only divided

the skin and cellular tissue. The object of these incisions was to thoroughly expose the tumour, and, at the same time, avoid as much as possible injury to the synovial membrane of the joint and to the ligament of the patella. When the tumour was brought into view, it was found that the ligament of the patella was stretched over it, and ran along a groove on its superficial aspect. The tumour had apparently originated in the bursa under the ligament, and the connection of this ligament to the tumour explained its fixed condition, which simulated an osseous attachment. By careful dissection, I succeeded in removing the tumour without injury to the ligament; and, although a large surface of synovial membrane was exposed, the cavity of the joint was not opened into.

The operation was performed under the carbolic spray, and the wound was dressed with the usual precautions. Not the slightest local or constitutional irritation followed the operation, and the patient was dismissed on October 29th, the wound being soundly healed, and the joint and limb perfectly movable and natural in every respect.

Remarks.—From the history and situation of this tumour, I am inclined to think that it originated in connection with the bursa under the ligamentum patellæ. Fibrous enlargements of this bursa have been recorded, but the occurrence of an osseous growth in this situation is not referred to in recent works on surgery. The tumour had no attachment to, or connection with, any bone; and it may, therefore, be classed under those isolated osseous growths sometimes met with in the areolar and other textures, and of which Paget (*Lectures on Surgical Pathology*, 3rd edition) remarks, that they "are interesting for little more than their rarity."

The successful result obtained in this case, and the perfect recovery of the patient with a completely movable joint, must be attributed, in my opinion, to the employment of antiseptic precautions. By no other means do I think that so free an exposure of the synovial membrane could have been made without the slightest irritation resulting. *British Medical Journal.*

Case of Paracentesis Pericardii; Recovery.

The fact that the operation of tapping the pericardium for the removal of effused fluids is still *sub lite* renders the record of every case in which this operation has been performed peculiarly valuable and interesting, whatever the

ultimate issue. In the subjoined case the benefit derived from the treatment was marked, and it is scarcely too much to say that the patient's life was actually saved by drawing off the serous fluid, which was found to measure forty-two ounces.

For the notes of the following interesting case we are indebted to Mr. Thomas Elliot, M.B., late house-surgeon n the Bristol General Hospital.

John M———, aged 60, a carpenter, was admitted into Bristol General Hospital, on April 26th, 1875. Forty years ago he had rheumatic fever, and again two years later. His heart, he stated, was affected two years prior to the first attack. After these illnesses he enjoyed very good health till the close of the year 1874. He served as an "army carpenter" out in the Crimea, where, to use his own expression, he had "a lot of rough work." A month before Christmas, 1874, he was confined to bed for a week with rheumatism. For the two months prior to admission he had been "complaining," and troubled with a cough, and two weeks before admissin his feet and legs began to swell.

On admission there was general anasarca, shortness of breath, and a feeble pulse. Heart-action rapid and irregular, with an indistinct systolic mitral bruit. Lungs anteriorly resonant, posteriorly resonant at right base, dull at left base; respiration exaggerated over right side, tubular at left base

On April 28th the patient was much worse, apparently moribund. Breathing very oppressive, and could only be carried on when the man was lying on the left side, and slightly on his face. The face was of a livid colour; veins in neck full and tortuous, but not pulsating. Heart's apex could not be seen or felt; area of dulness greatly increased, but difficult to define on account of external œdema. The sounds were very distant and indistinct, almost inaudible. Lungs resonant anteriorly and at right base, dull at left base; respiration exaggerated over right side, tubular at left base; no appreciable difference between the two sides in conduction of voice sounds.

From these symptoms and signs Dr. Burder concluded that the patient's great and immediate distress was due to dropsy of the pericardium, and that therefore paracentesis should at once be done. The operation was performed by the house-surgeon (Mr. Thomas Elliot) by means of Dieulafoy's pneumatic aspirator, the needle being inserted between the fifth and sixth ribs, and an inch to the right of

the nipple. Forty-two ounces of clear, pale straw-coloured fluid were drawn off. Towards the close of the operation the apex of the heart was felt to strike once or twice against the needle but it ceased on placing the needle more horizontaly. It is here worth stating, especialy from a practical point, that for cases of paracentesis the needles of the aspirator might with advantage be graduated. At times it is extremely difficult to estimate how far the needle has penetrated, as it was in this case, where there was a considerable amount of external œdema.

The patient expressed himself as easier after the operation,but it was not till some hours after that there was any marked improvement.

On April 29th the patient looked much better ; the face was of a better hue, breathing much easier, and he could lie on either side or on his back. Respiration 50 per minute ; pulse feeble. Dulness over base of left lung diminished, and not extending so high upwards. Respiration over same region much more audible, with some moist sounds. Area of heart's dulness definable, sounds not so audible as immediately after tapping. On April 30th the improvement was much greater, the pulse was much stronger, and the general anasarca had gone down a good deal. On May 2nd he said that he had slept but little the last two nights, on account of continued coughing, but the next night he slept much better. On May 3rd he could lie on either side, but said that if he did so he must be well over on his face, but he preferred lying on the left side. Heart-sounds indistinct ; lower extremities more œdematous

From this time he continued to improve, and on May 31st the dropsy had entirely disappeared and the heart's apex could be seen and felt beating about an inch below the left nipple. The area of dulness was definable and greatly diminished ; the sounds were louder, and an indistinct bruit, apparently louder towards the base, but not carried up along the large blood vessels, could be heard. There was still a line of dulness posteriorly at right base, where also the respiration was feeble. After this he sat up daily, but if he made any exertion he suffered at once from dyspnœa, and palpitation. The heart's beat was less distinct and was more to the outer side of left nipple than before ; sounds irregular and confused.

On July 6th he was discharged as an out-patient, much improved, and able to move about more freely.—*Lancet*, Jan. 8, 1876.

CANADA

Medical and Surgical Journal.

MONTREAL, MARCH, 1876.

THE SPREAD OF INFECTIOUS DISEASES IN SCHOOLS.

Some interesting discussion is going on in the columns of some of our exchanges on the subject of the spread of infectious diseases amongst school children, and the best means of preventing such an occurrence. We should suppose that strict isolation and careful cleansing of the premises, is the only means at our disposal. There is no law in this country which will guide the people or force on the people, the adoption of common-sense views on the subject ; hence, we constantly hear of small-pox, scarlet fever, measles or whooping cough, breaking out amongst the children of certain public or private schools. Some of these affections are mild in their attack, and somewhat obscure in their mode of propagation ; but usually, we feel certain that, if carefully traced, invariably they will be found to originate from some contagious source, at least such is our own experience. Quite recently a little girl showed symptoms of whooping cough, severe in its attack. In the course of a few days three or four other children in the family were similarly afflicted. It was undoubtedly whooping cough, but how had the disease been contracted ? After some careful inquiry it was definitely learnt that at the school which this little girl attended, several children had been taken ill and were all afflicted with symptoms of whooping cough. The disease had apparently spread from one to the other with great rapidity. Many instances of the spread of infectious diseases could be enumerated, but they

are sufficently common to be admitted by all. The practical lesson to be learnt by these observations, is the necessity of isolating all children who have been exposed to the contagion of infections disease. In well ordered communities, where sanitary regulations are enforced, if an infectious disease breaks out in a school, a health officer would make it his business to warn the school authorities of the condition of things, and advise that all children suffering from infectious disease, or who had been exposed, should be put on the sick list and perfectly isolated.

ATHLETIC SPORTS.

The London *Lancet* calls attention to the danger attending the game of foot-ball as played at the present day, when the rules of the game as adopted at Rugby are introduced; it states that it is simply an exhibition of brute force, and that a strong, powerful team are sure to be the winners. This would be a matter of small moment were the sport unattended by more serious results, but we constantly hear of broken arms and dislocated joints, and in one sad instance which occurred last summer on the College grouud, a promising young fellow met with so severe an injury that it was followed by peritonitis and death within a few hours. Now we are fully alive to the beneficial results of athletic sports, and believe that they are in every way conducive to health, both of body and mind, but while our young friends indulge in foot-ball and other athletic sports, let those who possess greater muscular power than their neighbors, bear in mind that the human frame is delicate in its construction, and quite open to injury, if excessive force is applied in any particular direction; and also that such injuries may be attended by permanent disablement or death of a fellow mortal. And with regard to those whose business it is to lay down the laws of the game, we should admire their reconstruction so as to expunge all objectionable features. We have thought it well to caution our young friends on this subject as we suppose at the opening of spring, and

with the disappearance of our winter covering, the *green* will exhibit as many merry faces, and the youths and boys of our colleges and schools will be as anxious as ever to devote a portion of their spare time to the customary field sports.

TO CORRESPONDENTS.

We have been requested to pronounce an opinion in reference to the letter which we published in our last, emanating from the pen of Dr. Worthington of Sherbrooke. That gentleman, with his acute sense of the ridiculous, discusses the propriety of smelling the breath in order to make out a brain lesion. Now we feel certain that Dr. W. is the last person who would willingly and studiously offend a fellow practitioner, and in affording our readers a chance of some amusement, he carefully excludes all names, so that the bare facts of the case are given, and they are somewhat amusingly put. But after all there is nothing in the quotation that he takes from a Sherbrooke paper, but what any practitioner might endorse. If the writer believed that alcoholic draughts, little or much, would occasion injury to the brain, we do think that he was perfectly justified in his line of procedure, in order to discover how much of the symptoms present depended on the injuries to the head, which were quite apparent, and how much was due to the free imbibition of alcoholic beverages. If Dr. Worthington will excuse us, the idea is not an original one, it is a process of examination recommended by all the books on the subject.

DEATH OF SIR G. DUNCAN GIBB, BART.

It is with regret we chronicle the death of our old friend and former colleague George Duncan Gibb, which event took place at his residence Bryanston Street, Portman Square, London, England, on Wednesday, 16th February ult, after a lingering illness of some nine or ten months. We have not received any particulars, but some time ago it was announced by the *Lancet* that Sir Duncan, in consequence of ill health, was obliged to resign his connec-

tion with the Westminster Hospital, he having been appointed Physician to that institution on the demise of the late Dr. Anstie. We defer any further notice of our old and esteemed friend until our next issue. Sir Duncan was, we understand, about to have published a new and enlarged edition of his work on diseases of the throat and windpipe. In a private letter which we received from him not very long since, he stated that he was engaged in revising his large work on that subject, and that when published it would be an entirely new treatise.

THE UTERINE ELEVATOR.

There are few diseases of the uterus which so thoroughly incapacitate the female to attend to her daily avocations, or which render life a burthen to herself and those around her, as falling of the womb. This proceeds in a great measure from a relaxed condition of the tissues around. It is a fact that forcible abdominal pressure, as in the act of lifting heavy weights, is attended in the female with a transitory or physiological descent of the uterus; but so soon as the pressure from above is removed the natural elasticity of the parts will enable that organ to regain its position. Frequent repetitions of this process of forcible propulsion of the womb downwards, and inversion of the vagina will be attended by most disastrious consequences. But prolapsus or displacement of the uterus downwards does not only depend on this condition of relaxation of the parts and forcible propulsion. For the relief of this condition various mechanical means have been introduced, and there is hardly a man who has devoted his time and energies to relieve these displacements that has not invented and recommended some form of mechanical support. Very little can be done surgically in the majority of these distressing cases. In noticing the improved Stem Pessary or uterine elevator of Dr. H. H. Burrington, we do so in consequence of having witnessed its beneficial use in a severe case of Procidentia. Our patient had made trial of several supports, but all seemed not to answer her case; we sent for and obtained one of Dr. B.'s instruments, and our patient has had perfect ease and comfort ever since it was applied.

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Leucocythæmia,—History and Autopsy. By JOHN BELL, A.M., M.D.

(Read before the Medico-Chirurgical Society.)

Amongst the patients, at the Montreal Dispensary, when I commenced attending for the quarter beginning April, 1875, was Henry G., a French Canadian, 56 years of age, who was, and had been suffering from ascites and dropsy of the legs and feet. His illness, I believe, commenced about a year previously. His hair and eyes were brown and his complexion, which had been of the brunette type common to his race, was pale and sallow. His face was thin, and wore a sad and distressed expression which did but little justice to his contented and happy disposition. His body was throughout much attenuated, and contrasted strongly with the round distended belly. After talking for a very short time he was oppressed with want of breath. I examined him only in the erect posture, and discovered what seemed to be a hard nodular deposit on the inside of the abdominal wall, most distinctly felt in the left inguinal region, extending downwards to the crest of the pelvis. From his wasted cachectic appearance, and influenced by the fact that râles were heard throughout the lungs, I thought that he was suffering from tubercular or cancerous infiltration of the peritoneum, and prescribed a pectoral mixture and Iron tonic. There was no pain in the belly, or distress except what arose from the pressure of the fluid on the

stomach and diaphragm. In a short time the lungs cleared up but the condition of the belly remained as formerly. His bowels were sometimes constipated, at other times loose but generally free. The treatment by diuretics, with iron and hydragogue cathartics, was now directed to relieve the discomfort caused by the accumulation of fluid in the peritoneal sac, but with little permanent success.

About the middle of May he sent for me to see him at his own home. He was lying down, and on putting my hand on his belly the nature of the tumour was solved—it was now an enormously enlarged spleen—the notched and somewhat nodulated end and edge of which had been already felt. The liver seemed to be but little if at all enlarged as the edge of it corresponded with that of the ribs—the organ being pushed up into the dome of the diaphragm and overlapped by the resonant lung. There was no enlargement of the external lymphatic glands, but there were cicatricial marks on the neck beneath the left ear. The superficial veins of the abdomen and front of the chest were enlarged and formed anastomoses by vessels of large *calibre.* A fringe of small veins, such as I have seen in cases of hepatic obstruction sprang into view at the edge of the ribs and extend about an inch upwards.

He had lived in the S. W. States about fifteen years ago and in coming to Montreal had been detained a short time at Whitehall on Lake Champlain, where he was seized with intermittent fever, from which, however, he soon and permanently recovered after reaching Montreal. Here, in passing, I may observe that Niemeyer states that "no connection has been proved between this disease (Leucocythæmia,) and malarial infection, or scrofula."

A nourishing diet, quinine and iron, in various forms were now prescribed with the application of the Biniodide of Mercury ointment externally. Under this treatment he rapidly improved ; he grew stronger, the ascites and splenic tumour diminished so that he was able to walk a mile down town to his work—that of a saddler. He shortly after this

went to the country, taking with him a supply of medicine, which, by the way, he never used, as he found himself so well—and I lost sight of him until the beginning of November.

I had never read of a case of Leucocythæmia having occurred in Canada, nor was I aware that this rare form of disease had as yet found a victim in this colony.

On the 15th December, at Dr. Howard's suggestion, I examined the freshly drawn blood under the microscope, and found almost the whole field filled with white blood corpuscles, *apparently* considerably smaller (one third, perhaps), than the red. The white corpuscles *appeared* to be several times more numerous than the red ones, but I could not at the time attempt to count the number of each in any area, and would not now like to hazard a guess as to their relative proportion. Niemeyer says, "while, in normal blood, there are 350 red blood corpuscles to one white one, in Leukæmia (as the Germans, after Virchow, and imperfectly, according to Bennett, delight to name this disease J. B.)—the number of white corpuscles may become so much increased, and that of the red ones so much diminished, that the former will become a sixth or even half as many as the latter. In the *splenic* form of the disease the white blood corpuscles are not distinguishable from those of normal blood; they are distinct, well-developed cells. In the *lymphatic* form, on the other hand, Virchow and other observers, found numerous free nuclei and small cells, both of which correspond exactly with the elements found in the lymphatic glands.

In the beginning of November I saw this patient again, and found him very much the same as when he first came under my observation, but now suffering from diarrhœa, as well as bronchitis. The latter was soon relieved, but the former persisted almost continuously until his death. Iodide of Potash and Quinine were now used with iron, and occasionally Digitalis, Squills and Colchicum, as diuretics. As a *dernier resort*, Warner's Pills of Phos-

phorus were tried but with no avail, as the weakness and the œdema of the legs increased — the skin becoming cracked and irritated, and finally the whole body became anasarcous. There was no albumen in his urine. He was slightly delirious the night before his death which took place on the 14th of January, 1876.

Autopsy—thirty-six hours after death :—

The whole surface was pale. The legs were swollen, and the abdomen distended with effused serum. A few small ecchymoses were found on the backs of the hands. *Rigor mortis* slight. In making the *sectio-cadaveris* the muscles were seen to be pale in colour, and no trace of adiposé tissue could be found. The cartilages of the ribs were yellowish and fatty in appearance. About two gallons of dark greenish fluid was removed from the abdomen. Old adhesions united the right lung to the pleura, but otherwise this and the left lung were healthy. White patches and lines along the prominent veins marked the areas of attrition between the most prominent parts of the heart and pericardium. The heart itself showed no peculiarity, but on severing the large vessels coagula slipped out composed in distinct parts, of dark red clots, greenish-yellow, semi-purulent masses and smaller pieces of translucent fibrin. The right side of the heart was full of these, and they extended up into the pulmonary artery and its larger divisons.

The omentum, and peritoneum generally were found thickened, firm and sodden. The omentum had become attached in many points to the surrounding organs. Especially noticeable were two thickened bands, carrying large veins, that were attached to the abdominal walls at the edge of the ribs in front. The parietal attachment of the right band corresponded with the position of the fringe of vessels seen on the cutaneous surface and referred to already. In the thickened wall of the intestine the peritoneum in many places presented small depressions, about the size of a half

a grain of pepper, that looked like cicatrices, but no corresponding mark could be found on the mucous surface.

The greatly enlarged spleen, firm and mottled all over with whitish spots, occupied a large part of the left side of the abdominal cavity. It was tolerably regular in form, elongated like an almond, and presented the usual notch in its anterior edge, together with several smaller sinuosities towards its lower ends. It measured about 13 inches in length, 6½ inches in breadth, 17 inches in circumference horizontally at the middle of the periphery, and weighed — lbs — oz. The veins and splenic artery were proportionally increased in calibre. Dr. Osler has kindly examined the minute structure of the spleen as well as that of the other organs and tissues, and I believe has prepared a paper and microscopic sections, embodying and illustrating his observations.

The liver was considerably enlarged, and its cut surface was glistening and smooth, and of a greyer colour than normal. There was no means of weighing it. The kidneys were about normal, &c., in size and appearance, with the exception of being flattened out from pressure, the left one in particular being very much expanded. Some parts of the cortical substance were paler than others.

Some of the mesenteric glands were a little enlarged. Several of the retro-peritoneal glands were also increased in size and slipped readily from their investing tissues. They seemed to have a white watery appearance and be more friable than usual. The brain was not examined.

1, Beaver Hall Terrace,
Jan. 26th, 1876.

Remarks on the Histology of the above case. By WILLIAM OSLER, M.D., L.R.C.P., London. Professor of Institutes of Medicine, McGill University.

Beginning the description with the blood—the tissue most remarkably altered in this disease—it may be noticed in the first place, even with the unaided vision, a peculiar creamy

look in the slides prepared for examination. This is very characteristic, and when seen in blood taken from an adult is in itself evidence of an excess of colourless elements. In sucklings the same appearance is seen after feeding from excess of fatty matter in the blood. In a specimen sent me for examination some time before the death of the individual the colourless corpuscles numbered at least one-third of those in the slide; the majority of them in appearance resembled the ordinary colourless elements, many, however, were smaller, others a little more granular than usual. One feature, not at all usual in ordinary corpuscles, was the presence in most of a single, clear, vesicular nucleus. Blood taken from the heart and splenic vein after death presented very much the same characteristics; the colourless corpuscles from the latter situation varying greatly in size. The general experience in Leukæmia is that the colourless elements of the blood are somewhat larger than in health. No such conclusion can be drawn from this case as was evident by an examination and comparison of sketches of two sets of healthy and leukæmic corpuscles, drawn to scale. Though some of the latter were larger than normal, others again were much smaller, and the average size in the two sets was very nearly the same. Apart from the increase in number, the presence of a single vesicular nucleus in most of the corpuscles was their most striking feature, and one not common in either leukæmic or healthy blood. When first examined a nucleus may not be seen in normal corpuscles, but after a time, especially if reagents—acetic acid—be added, two or three may develop, and the same number is spoken of as occurring in the colourless corpuscles of leukæmic blood.

Peculiar crystalline bodies, which will be referred to hereafter, were found in the blood of the specimen first given me, and also in the blood from the splenic vein and heart.

An unusual tendency to crystallize, not often met with in human blood, existed, and from the specimen examined during the life of the patient the Hæmoglobin separated

out in small square tablets and in long rectangular prisms. In a slide of blood from the heart, which was surrounded with oil and laid aside for a week, some enormous tablets and prisms crystallized out.

In the heart were several large clots of a peculiar greenish-yellow colour, like masses of semi-solidified pus. Some of these were seated on dark grumous bases, others were uniform throughout, while one was capped with a layer of transparent gelatinous fibrin infiltrated with serum. On examination the greenish coagula proved to be collections of leucocytes entangled in the meshes of the coagulated fibrin ; while, after hardening, the cut sections presented a remarkable similarity to lymphoid or adenoid tissue, consisting of a reticulated network, in the interspaces of which the cells were enclosed. One or two decolourized clots were met with in the splenic vein.

Spleen—Teased portions showed numerous small corpuscles, very like those met with in the pulp of healthy organs, together with other larger cells, leucocytes, in tolerable abundance. Nucleated fibre cells existed in great numbers, constituting in many specimens the majority of the formed elements. Normally these occur about the smaller vessels and in the connective-tissue framework of the organ, but not in the proportion found in this case. Red blood corpuscles and much fibrous tissue were also present. No traces of the Malpighian corpuscles remained. Sections taken from different localities demonstrate that the chief change in the organ had occurred in fibrous, elements which were everywhere enormously hypertrophied, being both relatively and absolutely increased. Thin sections of a healthy organ, (such as you see under one of the microscopes,) show little else than a dense aggregation of small round spleen corpuscles, and it is only at the thinnest portions, and with high powers, that the delicate fibrous stroma of the pulp can be detected. In this case exactly the reverse holds good. Not only the coarse bands which, as in the normal organ, dip into the substance

are hypertrophied, but also the excessively fine adenoid network forming the matrix of the pulp ; so that with a low power we see a tissue composed apparently of nothing but fibres crossing each other in all directions, and having little, if any, resemblance to the structure of the healthy organ. From the remarkably irregular course of the fibres and their arrangement, a peculiar appearance is given to the sections which will be best understood by an examination of the specimens. Light and dark columns of fibrous tissue are seen crossing each other in every direction, four or five often radiating from one point, corresponding generally to a transversely cut splenic vessel. Thin sections highly magnified further show the extent of development of the fibrous tissue, and the relation of the cells to the reticular network, explaining, moreover, the light and dark areas which give such an extraordinary appearance to the specimens when examined under a low power. Extending from the larger trabeculæ coarse and fine fibres proceed which uniting enclose rounded or irregular-shaped areas, and from these others originate forming similar spaces. The nodal point of these fibres is usually somewhat triangular in shape, and a small nucleus is not unfrequently seen, so that in places they are or appear to be formed by the union of the processes of stellate fibre cells. Such an arrangement, I may remind you, constitutes the stroma or fibrous matrix of all lymphatic structures, and is known as an adenoid tissue. Normally it occurs also in the spleen pulp, enclosing the cells in an exceedingly delicate reticular network very difficult to make out. In this case the delicate stroma is greatly hypertrophied, and constitutes with the coarse bands dipping in from the capsule the bulk of the organ. The relation which the cells bear to the stroma is very easily made out, the latter simply encloses them in its meshes, and according to the width of these one,two, or more cells are included. In most instances the meshes are so small that only a single corpuscle is enclosed, which appears, moreover, closely embraced by the fibrous net. In other instances two or more corpuscles may be counted in a single areola.

The dark and light columns referred to above are found to depend on the presence or absence of corpuscles in the meshes ; in the former case they are retained, hence the darker appearance ; in the latter they are absent, and in consequence these columns look much lighter. A precisely similar structure is met with in the lymphatic glands, in which the light areas constitute the lymph paths, while the dark columns, termed the follicular cords, are filled with the lymph cells imbedded in an adenoid matrix. The lymphatic vessels after penetrating the glands ultimately open into the lymph paths, or clear columns, and the lymph in passing through disengages or washes away the corpucles from the contiguous follicular cords or dark columns.

Substituting in the spleen the blood-vessels for lymphatics, there is a remarkable similarity—not only in general structure, but in the relation of the blood current to the cells and fibrous network—between this organ and an ordinary lymphatic gland ; so much so that Frey, Müller, and others describe it as a blood-lymph gland. According to their description the "blood from the arterial capillaries is emptied into a system of intermediate passages, which are directly bounded by the cells and fibres of the network of the pulp, from which the smallest venous radicles take their origin." The colourless corpuscles are supposed to develop from the cells of the pulp, and are washed out by the constant current of blood passing through the organ. Hence the increased number of these elements met with in the blood of the splenic vein. Some even believe that these colourless elements may while still within the spleen pulp develop into coloured corpuscles, but of such a process we have no definite knowledge. This being the case, it would appear easy to explain the etiology of this disease : hypertrophy of the organ, increase of the cellular elements, more rapid formation of colourless corpuscles, and conduction of these into the circulation by the blood current would be steps in the process. Unfortunately, there are insupera-

ble difficulties in the way of any such explanation. We know of half-a-dozen hypertrophies of the spleen—more genuine hypertrophies too than are met with in Leukæmia —in which the normal proportion between the elements is maintained, yet wholly unaccompanied by any increase in the cellular elements of the blood. To say that in the simple hypertrophies there is retention of formed elements, while in Leukæmia there is a rapid increase, and as rapid separation of colourless elements, incapable of developing into red blood corpuscles, is simply to admit our ignorance of the intimate pathology of this obscure affection.

Again, there is a disease Anæmia lymphatica, or Hodgkin's Disease, characterized by enlargement of the lymphatic glands of the body, generally without any accompanying hypertrophy of the spleen, and without any increase in the colourless elements of the blood; and yet this is equally pernicious and runs a like fatal course. Further, there is a variety of Leukæmia, excessively rare indeed, marked by hypertrophy of the lymphatic glands all over the body without corresponding enlargement of the spleen. I mention these affections, so like in some respects, so unlike in others, just to illustrate the difficulties in the way of establishing a correct pathology of lymphatic disorders.

Passing to the consideration of the liver we meet with changes equally remarkable. On section of the organ, and also through the capsule, irregularly scattered areas of a white or yellowish white appearance were seen, nowhere, distinctly isolated, but merging into the surrounded liver substance. Portions taken from these areas and teased in saline solution presented a great accumulation of round colourless corpuscles, ordinary lencocytes, very similar to those met with in the blood, many of them with the same clear vesicular nuclei. They presented considerable variations in size. The proportion of these corpuscles differed according to the locality from which the peice was taken; from the central portions of some of the larger

white patches they formed almost the only elements in the field, in others the liver cells were present in abundance mingled with the former. Irregular cells filled with yellow granules constituted the sole remains of liver structure in some places, while in others the cells were not so much degenerated, but a little irregular from pressure. Many possessed double nuclei. Some irregular shaped connective tissue corpuscles were found in these specimens. In the more natural looking liver areas the cells were found in a healthy condition, not at all fatty, and with very little granular matter. In these portions leucocytes were also found but in greatly diminished numbers.

Cut sections (made after hardening the organ in Müller's fluid and alcohol) are exceedingly instructive with regard to the distribution of the leucocytes. Thin sections of healthy uninjected liver, when cut transversely to the central veins of the lobules, show elongated cords or columns of hepatic cells converging towards the openings of the central veins,with very little intervening space between contiguous columns. Similarly in a section parallel to the central vein these columns appear cut across and are seen to unite with neighbouring columns, small empty spaces representing the position occupied by the vessels, existing between them. In this leukæmic liver an extensive infiltration of leucocytes existed between the columns of liver cells, and formed the essence of the disease in the organ. In some situations they were few in number and the surrounding liver substance was little effected, in others wide areas filled with them were seen between thin atrophied cords of hepatic cells. A still further change was seen in many places ; atrophied remnants of liver cells occurred interspersed in a tissue made up of leucocytes, surrounded by a finely granular or fibrillar matrix. Indeed, so closely were the leucocytes set together, and so scanty the remnants of liver substance, that in spots it looked like a tissue infiltrated by a malignant growth—a small cell Sarcoma. Of all organs the liver is the most frequently

affected by leukæmic growths, and occasionally is found much more diseased than the spleen. The leucocytes filling the spaces between the columns of liver cells are usually regarded as white corpuscles which have wandered from the blood-vessels, and certainly the conditions in the liver are most favorable to such a process. The blood in the portal veins has already traversed one set of capillaries and must circulate in the intralobular plexus under extremely low pressure. We know that the colourless elements of the blood have a great tendency to adhere to the sides of the vessels, especially under diminished blood pressure, and very readily migrate through. They are sticky adhesive bodies when in the vessels, and adhere to one another and to the walls with great pertinacity. That all the leucocytes in such a liver are to be regarded as vagrant white corpuscles may be doubted. It is much more probable that by a process of fission they have multiplied enormously in the leukamic tracts, causing atrophy of the liver substance. Indeed, these aggregations of leucocytes may themselves have been foci for the origin and development of others, which, passing into the blood current, served to augment the colourless elements.

Kidneys.—The portions of these organs removed for examination did not show any marked alteration in structure. Here and there groups of leucocytes were seen between the tubules, but the process was limited, and no extensive growths, as often met with, were found.

Lymphatic Glands.—These did not appear much, if at all, enlarged, and those removed (mesenteric and lumbar) did not give evidence of any hyperplasia of their cell-contents. The one which, so far, I have specially examined showed a great increase in the fibrous elements with a corresponding diminution in the cells.

Some remarkable crystalline bodies were found in the blood and liver, forming colourless spindle-shaped prisms, of very beautiful and regular shape, varying much in size. I can offer no explanation of their nature, not having had

time to test them properly. Many crystalline organic principles—Xanthin, Hypo-xanthin, Creatinin, and others—have been found in the blood and organs in this disease, but whether the ones here referred to have any connection with either of these I cannot say.

Case of Imperforate Rectum, Colotomy in the region of the Sigmoid Flexure—Recovery. By WILLIAM GARDNER, Professor of Medical Jurisprudence, McGill University.

On the 1st February of this year I was asked to see a male child, two weeks old, whose bowels I was informed had never been moved. On enquiry I found that the child had had several attacks of vomiting (on one occasion only, of stercoraceous character), but had not seemed to suffer much in other respects, and nursed fairly well. The skin was of a somewhat sallow or dirty hue and withered or shrivelled in appearance, the abdomen very much distended, and the superficial veins greatly enlarged, and distinctly visible through the integument. On examination the anus with sphincter and rectum to the extent of three quarters of an inch were found to be perfectly normal. To the examining finger the cul de sac felt puckered as if from a cicatrix; when the child strained, which the presence of the finger in the rectum seemed to induce it to do, a boggy semi-fluctuating sensation is perceptible.

Being by no means certain that a portion of the rectum was not absent, I did not dare to attempt to establish the natural passage, but concluded that the safer plan would be to open the bowel in the left groin, leaving the question as to the propriety of any attempts in that direction to be decided by the additional light which I expected would be thrown on the case by exploration from the artificial opening in the groin.

Consequently, on the following day and with the valuable assistance of my friend, Dr. Wilkins, I proceeded to perform the operation of colotomy, in or as near as might

be, the sigmoid flexure. The child having been chloroformed, I made an incision an inch and a half in length, extending in an oblique direction upwards and outwards from the middle line to a point about half an inch beyond the anterior superior spinous process of the ilium, dividing the skin, and cellular tissue or superficial fasciæ till I reached the muscles, which with the transversalis fascia, and peritoneum were successively divided on the director. The distended bowel lay immediately beneath ready to hand. The gut was transfixed by two curved parallel needles, half an inch apart, and each threaded with double ligatures of carbolized catgut, after which it was opened and the edges attached to those of the wound in the integument. A large quantity of meconium of a greyish-yellow colour was immediately voided. The substance of the coats of the bowel was found to be very easily lacerated, as if softened, from the effects perhaps of previous inflammation from the distension. The operation, although tedious, was one which presented no very great difficulties in its performance. Some bleeding from the lower extremity of the wound was arrested without much difficulty. At no time after the operation had the child a single bad symptom but nursed and slept as if nothing had happened. The skin rapidly lost the dirty sallow hue it previously presented, and at the end of a fortnight the little fellow became quite plump and healthy-looking.

Repeated explorations of the bowel, first with elastic bougies, and subsequently with a whalebone probe, introduced through the opening in the groin, conjoined with the finger in the canal *cul de sac*, lead to the conclusion that the rectum is absent for a portion of its length, as the probe thus used cannot be made to pass downward for more than about three quarters of an inch, and cannot be felt by the finger. The most remarkable fact in the case, perhaps the only one excepting of course the success of an operation so frequently fatal, is that this child should have lived for a fortnight (as it did) previous to the operation, in a condition of compara-

tive comfort without evacuation of the bowels. Some difficulty has arisen from a strong tendency displayed by the opening in the groin to contract and to become almost closed. On one occasion on visiting the child, after an interval of ten days, I found the opening so much reduced in size as barely to admit an ordinary probe ; the abdomen was again distended, and the child restless and fretful. With the assistance of Dr. Wilkins, who gave chloroform, I proceeded to dilate the opening, first by gum elastic bougies, andsubsequently with a bivalve ear speculum provided with screw mechanism for separating the blades. I subsequently introduced a pair of dressing forceps into the opening and further dilated it by separating the blades. The child almost immediately passed a large quantity of fæcal matter, and rapidly resumed his wonted good-nature. I hope to be able to obviate this persistent tendency to the closure of the opening by means of a plug and shield of gutta-percha moulded to the parts.

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TRANSLATION.

Anomalies in the development of Vaccine Pustules.

Heller (Centralblatt f. d. Med. Wissen) records some interesting observations on this subject, in the revaccination of 700 young and active recruits. They may not prove uninteresting to the readers of this Journal at the present time when the question of the protective influence of vaccine is so engaging public attention.

1. *Single vaccination, unequal (as regards time) development of the pustules.* Four cases, of which the following is the best example, Heinzer, vaccinated on 13th November, with nine days old glycerine lymph from a child (1.5) six points. On 20th November, three well developed pustules ; on 28th November (15 days after), five well developed pustules, of which two had arisen within five days, the three old ones were beginning to dry up.

2—*First vaccination without effect, second effective with*

simultaneous development of pustules on the first points. Three cases. Rouby, vaccinated on 15th November with ten days old glycerine lymph, six points upon the right arm. On 20th November no trace of pustulation; vaccination repeated, six points on left arm. On 26th November two well developed pustules, of which one was on the last, the other on the first place of vaccination.

3.—*First effect incomplete, vaccination repeated, and now in both places development of mature pustules.* Three cases. Krüger, vaccinated on the right arm, six points, on 14th November. On 20th November, three indistinct pustules. Vaccination repeated on the left arm. On 26th November, four well developed pustules on the left arm and five on the right. Hiller concludes that failure or imperfect success of a single revaccination does not warrant the supposition that the individual is insusceptible to vaccination. He states as a remarkable fact that lymph which in forty persons proved effective, in ten others, vaccinated with equal care, was inoperative, whereas eight days later vaccination of these ten with another specimen of lymph was successful.

4.—*First vaccination successful, second, performed 5-7 days after, also successful.* The views of authors differ as to how many pustules are necessary in order to secure the desired protection. According to Eulenberg's collected experiences the question may be answered thus: *a few pustules may thoroughly fulfill the purpose, but the duration of the protection decreases as the number of pustules (under five) diminishes.* This corresponds with the idea, tolerably wide spread in the army, that less than three marks does not afford adequate protection, and consequently revaccination is indicated. In 27 cases in which within the first week after vaccination, 1–3 typical pustules had developed. Dr. Hiller repeated the vaccination upon the other arm, in ten on the 5th day, in seventeen on the 6th. Out of these twenty-seven recruits a second succsssful vaccination was

obtained in fourteen, six having four pustules and over, eight less than four. By way of comparison in twelve other individuals who had been successfully vaccinated, the process was repeated on the 15th and 16th days after, at a time when, of course, the first produced pustules had already dried. In not a single instance in these cases was the second attempt successful. These observations confirm those of Bryce in 1802, who states that even after the 6th day a repetition of the vaccination would produce fresh pustules. Sacco has shown by accurate experiments that the protective power of vaccination first supervenes between the 11th and 13th days, an experience fully borne out by clinical observations, as small-pox may come on during or immediately after a successful vaccination.

5.—*Development of pustules close to the vaccination spots.* Three cases. Westerfield, vaccinated on 13th November, with nine days old glycerine lymph on right arm, 6 points. On the 28th November, 7 well developed pustules, one of which was situated on the inner side of the arm, about 1¼ inches distant from the nearest pustules. In these cases the transference of the virus was probably effected by means of the finger nails. Two of them confessed to having scratched the spots in the night on account of the intolerable itching.

6.—*Successful vaccination upon Acne and Psoriasis spots.* John, vaccinated with ten days old glycerine lymph on right arm, six points. On 20th November no effect visible. Vaccination repeated with lymph from the arm of an infant; four points on the left arm, and four points in Acne pustules, which were abundant on the shoulders and back. On the 26th November two mature pustules in acne spots on the shoulder. No change in the points on the arm. In another case vaccination at several points on Psoriasis spots developed into circumscribed papules with vesicular tops, while vaccination on the sound skin was twice unsuccessful.

7.—*Successful vaccination in the initial stage of Typhoid fever.* Dr. L. vaccinated on 24th April, eight points on right arm. Three days after he complained of headache, weakness, and shiverings, which proved to be only the initial symptoms of an attack of Typhoid fever with which he was laid up for between four and five weeks. By the 5th May four of the vaccination points had developed into mature pustules. W. O.

WERHNER; *Enormous Air-Tumour*, arising from spontaneous Dehiscence of the Mastoid cells. Cure after four years duration. (Deutsch, Zeitschr, f. Chir. III., quoted in Centralblatt f. d. Med. Wissen.)

Case.—After a violent fit of sneezing, four years ago, a tumour about the size of a pigeon's egg formed without pain over the right mastoid process of a weaver aged twenty years. Pressure caused the tumour momentarily to disappear, but it returned immediately with expiration. After it had grown to the size of the fist it could only be diminished by pressure, but no more entirely removed. On examination the tumour was found to extend over the whole right half of the head, it was flat with a broad base, the upper surface uneven and rough, and divided into three large rounded knobs, the most prominent of which lay over the back of the head and a less prominent one covered the crown. The skin over the tumour was separated, from the bone by a distance of $1\frac{1}{2}''$–$2''$; otherwise the skin was normal. The tumour was entirely painless on pressure which drove the contents to all sides. The mastoid process perceptibly divided its whole length. Percussion clear in every part. On putting the ear down to the tumour and compressing it, we hear a bellows murmur (Blasenbalgeräusch), but no emphysematous crepitation; swelling and tenseness of the tumour increased by sneezing and the "Valsalva method." Slow and scarcely perceptible compression of the tumour causes the patient to feel a sensation of air in the throat, which is discharged with repeated difficulty of respiration. *No visible change in the ear.* Acuteness of hearing somewhat diminished on the affected side, relieved by a compress and bandage, this is without lasting effect. Closer examination confirmed what is above stated. During the pressing back of the air there are frequent eructations of gas but no difficulty of respiration. On the 12th day, compression after the previous removal of air by an exploring needle had no result. After this by the production

of adhesive inflammation, the opening of communication was endeavored to be closed. A ring was placed on the division in the mastoid process, and pressure made on it by the finger, whereby a portion of the tumour was isolated completely, and into this isolated portion, Iodine was injected. The three first injections only caused lessening of the tumour. The last injection was made into the highest part of the tumour directly over the crown and caused complete cure of that part of the tumour which still contained air and was supported by compress and bandages.

E. Guibout, *Malignant Galloping Syphilis.* (Union Med., 1875, quoted in Centralblatt f. de Med. Wissen.)

Guibout describes two cases of Syphilitic Rupia which were accompanied with general cachexia. The patients had high fever with sleeplessness and were confined to bed. Both cases (a man and a girl, aged from 25 to 30), had four weeks previously primary sores. Malignant syphilis may be either a primary or a secondary affection. The first case had genuine symptons of general syphilis without any antecedent eruption. In the second case it appeared suddenly as distinct general disturbance after the various normal eruptions. In both cases the causes were, absence of treatment, bad hygienic conditions and impairment of the general health through excess, want and fatigue.

In the foregoing cases, we may accept the above reasons for the girl who, besides having the first appearances of syphilis, had had a phagedenic chancre. The young man had been previously very robust, and had been treated *lege artis.* In this case there must be supposed to be either a special idiosyncrasy or that an abnormal quantity (?) of the syphilitic virus had been received.

The diagnosis in all cases is a serious matter, itself a 'quoad vitam.' The treatment must be a very cautious

one, mercury and iodine being contra-indicated on account of the general weakness and fever. First of all fresh air, aromatic baths, oysters, wine, meats, &c., are indicated, also strychnine before meals. As soon as the strength is increased and the fever diminished, give five deci-grammes of Potass Iod, at first once a day, then twice, then three times ; then use mercury by inunction and sulphur baths, or Hydrarg Iod. gr. 1-20 once a day. Both cases were cured in two months by this treatment. F. S.

Hospital Reports.

Medical and Surgical Cases Occurring in the Practice of the Montreal General Hospital.

Case of severe injury to fore-arm. Under care of Dr. Ross. Reported by J. D. Cline, Assistant House Surgeon, Montreal General Hospital.

John Ashcroft, a printer's boy, was admitted into hospital on the 24th of November, 1875. He was engaged in keeping the large stone of a lithographic machine clean with a large sponge when the sponge was caught in the roller and dragged his right arm in with it. The injuries were as follows: There was a compound dislocation forward of the lower end of the radius, the wound being transversely across the front of the joint down to the tendons; a compound dislocation between the two phalanges of the thumb, the end of the lower phalanx protruding through the wound, and a simple fracture of the ulna about three inches below the olecranon. The ends of the middle and ring fingers were very much crushed, and the whole hand badly bruised. The circulation was good in the hand. The vessels at the wrist had escaped. On admission the ends of the crushed fingers were amputated up to the first joints, and the dislocations reduced. All the wounds were sewed up, and the arm was put up on a rectangular splint on its posterior aspect with a straight anterior splint to within a couple

of inches of the wound at the wrist; and a gutta percha splint was moulded to the back of the wrist and bound so as to bring together the edges of the gaping wound at the wrist.

Ice water was applied to the whole wrist and hand by irrigation. The boy was tall for his age, of a thin skin and fair transparent complexion, and evidently of a constitution very much disposed to inflammation. The constitutional disturbance was very great. The temperature was 101°. the morning after the accident, and on the next morning, 104°. He got a mixture of Potass. Nit., and Tr. Aconit.

Dec 3rd.—Temperature down to 99°. Flaps of amputated fingers sloughed, and a large slough formed over seat of dislocation in thumb. Splint removed for first time. Found several superficial sloughs on back of hand, and abscess at back of wrist-joint, which was opened, and discharged a quantity of pus. It extended between the bones and into the joint. Was put upon Tr. Fer. Muriat m v, three times a day. General condition very good, so far, but from state of wrist-joint the advisability of amputation of arm was entertained.

Dec. 6th.—Consultation of the hospital medical staff being held, it was decided not to amputate but to trust to nature for a successful issue. He continued in good condition, temperature not running higher than 100°, till the 14th when a sharp attack of erysipelas set in. At 3.30 p.m. he had a severe rigor, during which his temperature was 103.5°. At 5.30 p.m., temperature was 106°, and pulse 144. He got a mixture containing Tr. Fer. Mur. m x, and Tr. Aconit m iij to the dose, which was to be taken every three hours, and a lotion of lead and opium was applied hot to the hand and arm. Up to this time the dressing had been carbolic lotion, 1 to 40. The hand became very much swollen; the granulations became glazed and swollen, and the discharge ceased from the sores, and altogether the arm presented a very unpromising appearance. On the 24th the erysipelas had subsided, the temperature was again

below 100°, and from this time the sores began to assume a healthy appearance. The second phalanges of the middle and ring fingers, which were quite loose, were now removed, the sores were dressed with 'red wash,' and the fingers strapped to reduce the swelling by pressure. The patient's general condition rapidly improved now, he was got out of bed, and the sores healed rapidly. At this time passive motion of the wrist, fingers and thumb was employed. It resulted, however, in very slight power of motion in the wrist and fingers, but very good in the thumb. He was discharged on the 7th February, 1876, with instructions to continue the passive motion. The result was certainly better than if an amputation had been performed. His hand at the time of his discharge was still swollen a good deal. He had very little power of flexion of the hand and fingers, with only the first phalanx of two of them left, but very good power of flexion in the thumb.

Case of Acute Rheumatism treated by Salicylic Acid.— Under care of Dr. FENWICK. Reported by J. D. CLINE, B.A., M.D.

Elizabeth Duncan, æt 18, was admitted into the hospital on the 28th February, with what promised to be a very sharp attack of Articular Rheumatism. Her temperature was 104°. There was a profuse acid perspiration ; tongue very much coated, and both shoulders and one ankle were swollen and very tender. She was seen by Dr. Fenwick on the 29th, when he ordered her Salicylic acid grs. ii, every three hours, in capsules. Her temperature fell and tongue began to clean, but the joints remained very tender. On the 2nd March Dr. Fenwick ordered grs. v, every two hours. By the 5th of March all pain and swelling had left the joints, and on the 8th the patient was ordered clothes and full diet. Thus the patient was five days under treatment, during which time she took in all 272 grains of Salicylic Acid. It produced no irritability of the stomach or bowels.

Reviews and Notices of Books.

Vision, its Optical Defects, and the Adaptation of Spectacles. By S. C. FENNER, M.D., Louisville, Ky. With 74 Illustrations on wood.

In this work the author, without making any pretensions to originality endeavours to give, "in a concise and popular yet comprehensive form, a *résumé* of our present knowledge of Physiological Optics, and of the defects of the eye as an optical instrument," and since the great works of Helmholtz and Donders embrace nearly all at present known in this direction, it follows of necessity that they have supplied him with most of the facts contained in its three hundred pages. The value of a treatise of this kind depends chiefly upon the good judgment exercised in the choice and arrangement of material.

In this respect we think that Dr. Fenner is to be congratulated for his success, not only in having selected just the kind of information required by the practical Ophthalmologist, but also in the arrangement of the subject. The attentive reader will first become acquainted with the physical properties and phenomena of light, and the laws which have been deduced from observation of these phenomena. When these are thoroughly comprehended he will be prepared to enter upon the more complex subject of Physiological Optics. This part of the work cannot fail to be very acceptable to every student of ophthalmology who does not happen to possess a thorough knowledge of the German language; for the "Physiologische Optik" of Helmholtz has not been translated into English, and the Sydenham Society's translation of Donders on the Anomalies of Refraction, and Accommodation being difficult to obtain, there are no recent publications in the English language capable of supplying the wants of those who are not satisfied with the meagre way in which this division of the

science of ophthalmology is discussed in the ordinary treatises on diseases of the eye. Here we have the pith of all the progress made in physiological optics up to the present time, dressed in an easy and familiar style, so that nothing more than an elementary knowledge of mathematics is required, to render the subject comprehensible. The errors of refraction and defects of accommodation are treated of in the third part of the work, and whilst avoiding unnecessary minutiæ, the author has fully made good his intention of giving a concise, thorgh complete account of this interesting and important branch of Ophthalmics. We can heartily recommend an attentive perusal of this chapter to all medical men, with the assurance that it will be the means of avoiding many grievous errors in diagnosis, and of affording relief to the suffering of thousands who are tortured with the dread of impending blindness, when in reality nothing but simple mechanical appliances are necessary to render vision perfect. To make this statement carry conviction with it we cannot do better than quote *verbatim* some of Dr. Fenner's remarks on hypermetropia:

"Many ambitious young men, with a fondness for study and high aspirations for professional distinction, have had their hopes nipped in the bud by increasing difficulties of continued near vision in reading, writing &c., and although they found relief from positive glasses, have been advised by those in whom they confided, not to wear them, but rather to go the country and seek some occupation which calls for but little exercise of accommodation. There is scarcely a teacher in any of our schools who has not had one or more pupils who, after much study, particularly by artificial light, does not suffer from fatigue, with nervous and vascular irritation of the eyes, accompanied by headache, and whose annoying symptoms would subside if permitted to wear properly adjusted convex glasses; but, owing to want of knowledge on the part of their physician, they are doomed to a continuance of the sufferings and inconvenience of defective vision. The great frequency of such cases renders

it important that not only members of the medical profession, but educated persons, and particularly teachers, who can easily comprehend the subject of hypermetropia, should be, to some extent familiar with it, so that they may make due allowance for the complaints of their pupils, and, at the same time, by the proper diffusion of knowledge, overcome the prejudice so widely existing in the public mind against wearing convex glasses, even where their use is imperatively demanded in order to overcome some natural or acquired defect in the eyes."

Similar remarks will apply to asthenopia from any other remediable cause, particularly that which is caused by astigmatism.

The book, on the whole, gives evidence of having been carefully written, by a man who thoroughly understands his subject, and it is only seldom that criticism would be in place, perhaps nowhere more than in the remarks made on "myopia at a distance," in which the illustrative case shows nothing more than an ordinary case of myopia, as any emmetropic person possessing normal vision can prove by making himself myopic to the extent of an $\frac{1}{8}$, by placing a suitable convex lens before his eyes and trying the experiments mentioned. He will then find himself able to read Jæger No. 1, at 8″ to 16″ but barely able to make out Snellen xx, at three feet distance, although, notwithstanding the too great convexity of the lens, vision through a small opening in a piece of metal held in front of the same glass, = No. xx at 20 feet. In the appendix are found some simple rules for the choice of spectacles, for the benefit of spectacle dealers and their patrons, which it is hoped will be the means of avoiding mistakes commonly committed by those who have not given the subject of refraction special attention.

Periscopic Department.

SURGERY.

Extension of inflammation from the Epididymis to the Urethra.—By Furneaux Jordan, F.R.C.S., Professor of Surgery at Queen's College; Surgeon to the Queen's Hospital, Birmingham; and Consulting Surgeon to the Women's West Bromwich Hospital.

Gentlemen,—I have had many opportunities of showing you cases of epididymitis following urethral disease. The disease is a common one, and its causes are many—almost too many to count. It would be easy to run over some half a hundred, and yet leave a few unmentioned. Urethral disease following and resulting from inflammation of the epididymis is, on the other hand, rare; it has few causes, and is not yet at all recognised.

I show you here a case of urethral discharge, which followed traumatic inflammation of the epididymis. This young man was in good general and genital health. He had never had gonorrhœa. His urethra, meatus, and prepuce were perfectly healthy when he came into the hospital. He received a violent kick on the left testis, and came in two days afterwards with some ecchymosis in the scrotum, and severe pain, tenderness, and swelling, which were clearly seated in the epididymis. On admission the cord was not thick, nor tender, nor painful. The day after admission, I myself found part of the cord greatly thickened—the thickened portion running up from the testis, and gradually subsiding just below the outer inguinal ring. The second day after admission, the swelling of the cord had passed into the canal, which was now full and tender. Two days later a urethral discharge, neither abundant nor scanty, and whiter than ordinary gonorrhœal fluid, made its appearance, and with it micturition became a little painful and a little more

frequent. This is the first case which I have been able to show you, and I have myself seen very few.

Recently I saw a case of epididymitis, also from injury, of much interest, and having a direct bearing on our subject. A gentleman, aged fifty, in fair health, came, in the dark, with his right testicle against a key in a door. Scrotal ecchymosis and considerable epididymitis followed. The cord became much enlarged, running like a rope up into the inguinal canal. Later, an abscess formed and broke at the front of the scrotum. Now, in this case, from first to last there was no urethral discharge. There was undoubtedly inflammation of the epididymis, and as undoubtedly the inflammation ran up the cord—probably to the urethra.

The question naturally suggests itself, albeit parenthetically: Why does inflammation of the mucous surface yield a muco-purulent discharge in one case and not in another? Why, in one case of inflammation of the bladder or bronchial tubes, is there abundant pus and mucus, and in another case little or none? I reply, We do not know. You frequently hear me use the expression, "We do not know." I think it better to say plainly we do not know than to cover our ignorance with sounding phrases. It may seem paradoxical to you, perhaps, but I often silently contemplate the benefits of a negative system of surgery—if we could get it: I mean a systematic review of what we do *not* know. The author would be a man of no ordinary courage; he ought to be a man of learning, experience, and judgment, equal to his courage.

The case I have just told you proves the conclusion I wish to bring before you—namely, that inflammation may run upwards from the epididymis—more forcibly, in one respect, than if a discharge had folllowed. You are aware that at the height of a consecutive epididymitis the urethral discharge often disappears, only to return a little later; but here it was clear we had no hypocrite trying to hide a clap, because there was at no time any clap to hide.

Touching the question of suppuration, I find with sur-

prise, that so careful an observer as Van Buren denies its occurrence in epididymitis. If there be an abscess, he infers that the body of the testis is inflamed. I believe that in this country surgeons are agreed that suppuration is not rare in the consecutive or other epididymitis of cahectic men.

Let me ask you now to look for a few moments at the causes of the inflammation of the epididymis and cord. Bear in mind that any inflammation of the prostratic urethra may extend along the cord to the epididymis. Now, an inflammation of the bladder of any kind, whatever its cause, under whatever circumstances it arises, may run forward to the prostatic urethra, and thence to the epididymis. Again, an inflammation of the anterior urethra of any kind however caused, arising under whatever circumstances, may run backwards to the prostatic urethra, and thence to the epididymis. Acute inflammation arising primarily in the epididymis has few causes: I can speak positively of one only,—injury. If the causes of primary epididymitis were more numerous, we should, I think, long ago have held urethral disease to be one of its results. Why injury sets up epididymitis mostly, and not orchitis, is no doubt for the same reason that inflammation of the cord and epididymitis so rarely reaches the testis—namely, that within the tunica albuginea there is no room for acute inflammation, for vascular changes, cell-proliferation, migration of cells, the general running riot of germinal matter, or other inflammatory phenomena.

If you accept the facts of the case before you and my reading of them, you will now and then be able to explain an otherwise obscure gleet. Moreover, you will not be compelled to affirm that in every case an epididymitis and a gleet together have necessarily a urethral, much less a sexual origin. The views before you may occasionally have (I speak from personal observation) important domestic or legal bearings.

The treatment I adopt here is that which I am in the

habit of adopting in inflammations; but which, seeing that it is exceptional, and strange to examining boards, I rarely take up your time in explaining. My creed is brief: I believe that the inflammatory process is much the same everywhere. I believe that the best remedies in one inflammation are the best in all. I believe that the best remedies are removal of cause (where it is removable), rest, adjacent and not too near counter-irritation, suitable pressure, elevation, and a few simpler matters. I therefore in each case try to find out the best way of using these remedies. In acute epididymitis I enjoin counter-irritation lightly over the scrotum, sharply in the groin and front of thigh; pressure, which begins as a delicate support, and goes on to actual compression; rest and elevation as far as they are practicable. The value of compression is well shown in the circumstance to which I drew your attention a moment ago—namely, the pressure upon the testis. If our bodies were mapped out into small areas, and each area were bounded by a firm capsule like the tunica albuginea, we should be free from the dangers of at least acute inflammation.—*Med. Times and Gazette.*

Extraction of a large foreign body from the Ear. By George P. Field, M.R.C.S., Aural Surgeon to St. Mary's Hospital.

M. Pratt, a little girl aged 6, came to the hospital with a black glass bead the size of a large pea in her left ear. She was sent on to see me by Mr. Lane. Previously, however, to her coming to the hospital, several attempts were made to extract the bead; but, unfortunately, the mischief was only increased, the bead having been pushed in still deeper, and firmly imbedded, the result of subsequent inflammation. I syringed gently, and postponed any further attempt at removal (as there was a good deal of inflammation) until my next hospital-day. She was, however, laid up with chicken-pox for two months; and, when she came again to the hospital (February 16th), all inflammatory signs had disap-

peared ; but the bead could easily be distinguished with the speculum, deeply seated and firmly fixed. She was put under chloroform, and an attempt made to remove it by means of glue attached to a piece of stick. This failed altogether. She was, therefore, placed on her side, with the affected ear downwards, and the syringe used from below ; and, after a little trouble, the bead dropped out. This is a case that one is likely to meet with every day. A great deal more harm than good is often done by the use of instruments ; but by the following method no injury can be caused. Place the patient under chloroform, with the ear affected downwards, and syringe from below. Pull the auricle backwards and upwards (by this means the external auditory canal is made into a straight tube), and apply the nozzle of the syringe to the upper wall of the passage. The water is then gently forced behind the obstruction ; the foreign body is loosened, and its own weight causes it to fall out of the ear. I have removed all kinds of substances in this way.

Practical remarks on Congenital Cataract. By GEORGE CRITCHETT, F.R.C.S., Senior Surgeon to the Royal London Ophthalmic Hospital ; Ophthalmic Surgeon to the Middlesex Hospital ; etc.

(Read before the Ophthalmic Section of the International Medical Congress in Brussels.)

I come now to the most important and interesting question connected with these cases, namely, that of treatment. It has been chiefly with a view of bringing certain questions to a definite issue, that I am induced to offer these observations to our meeting. We will now proceed to the consideration of certain alternatives which present themselves to the mind as measures to be adopted. We may first divide the cases into those which are brought before us at a comparatively early period, as between the ages of six and ten ; and those which come to us at or after the age of puberty. In children we may adopt various alternatives.

First, we may defer operative proceedings until the patient is able to decide the matter for him or herself. Secondly, we may operate on one eye, either by making an artificial pupil, or by removing the lens, by means of absorption or linear extraction ; or we may operate on both eyes. The method of making the artificial pupil also admits some modifications. It will be evident, therefore, that the case is not quite so simple as it might appear at first glance, but requires and deserves some careful consideration.

We will take the different questions *seriatim*, though to some they may possibly seem superflous and unduly analytical ; since the practice of the great majority of oculists is to subject such cases to the process of absorption, or more frequently to linear extraction—at least such a proceeding comes from time to time before my notice. It is this practice which I think deserves to be carefully reconsidered, and in many cases, if not in all, materially modified.

We will now briefly consider the various alternatives that we have set forth. Firstly : Do we meet with cases in children in which we are justified in postponing any operative proceeding ? If the vision be sufficiently good to allow the ordinary education to be carried on, and a fair amount of active exercise to be taken, I should prefer not to perform the major operation of absorbing or removing the lens, as it involves some absolute risk, and, if it succeed, requires the constant use of cataract glasses, which are a positive hindrance to a child ; but if it be a case in which there is such a well-defined, clear, broad margin as revealed by the use of atropine, that we have good reason to believe that a small artificial pupil would materially improve vision, should advise it to be made, because it is an operation with a minimum amount of risk, and because glasses are not required. In the second place, supposing the condition of the young patient, as regards vision, is such as to require operation, what method shall we adopt ? In all cases in which there is a clear margin representing one-third of the circumference of the lens, and where the vision is consider-

ably improved by the use of atropine, I should strongly advise the performance of a small artificial pupil in preference to the removal of the lens. It has the advantage that it is far safer, is much more quickly and easily performed, that it enables the patient to dispense with the use of glasses, that it in no way enfeebles the eye, nor does it prevent a subsequent removal of the cataract if altered conditions should render this expedient. When the transparent margin is somewhat narrow, the effect will be more doubtful. Our best guide in such cases is carefully to test the sight under the full influence of atropine ; and, if there be decided improvement, it may be confidently predicted that an artificial pupil will place the eye under still more favourable optical conditions. It is sometines very difficult to arrive at definite results in young children, and delay may thus be justified.

Secondly : Supposing an artificial pupil to be determined upon, what method shall we follow? The best optical results will be obtained by the performance of an iridodesis. It uncovers just sufficient space in the transparent part of the lens, and, at the same time, partially covers the semi-opaque portion. I have never met with any of the mischievous effects from this operation which have been assigned to it by others ; but as I can obtain nearly as favourable an optical result by another method, I have recently in most instances adopted it. I proceed as follows. I introduce a broad double-edged needle through the cornea near its margin, and just at the point which I intend should form the limit of my pupil. After withdrawing the needle, I introduce my small blunt hook, draw out the small portion of iris that intervenes between the edge of the pupil and the puncture in the cornea, and cut it off close ; then if gentle pressure be made on the surface of the cornea with the spoon of the curette, the iris detaches itself from the corneal puncture, and floats in the chamber, having had little more than a slit made in it ; indeed, it appears as if a small oval peice had been punched out of its pupillary edge.

In seems to me that this operation is peculiarly well suited to accomplish its purpose. It forms a small limited pupil just in the right place, where there is little or no reaction, and it is as safe as any operation on the eye can be.

We may consider in the next place, those cases where the transparent margin is too narrow to admit any material benefit from an artificial pupil, and yet where the vision is so far impaired as to give strong indications for an operation. Under these circumstances, we have no alternative but to remove the lens either by absorption or by linear extraction, a method of proceeding to which many high authorities are in the habit of having recourse in the majority of these cases, not unfrequently on both eyes simultaneously, and in such skilful hands, with a large average of success. Nevertheless, my own experience and my observation of others have convinced me that it is an operation involving some risk, and one that I undertake with some anxiety. Formerly the method of operating for congenital cataract was by absorption, a process requiring several months for its completion ; more recently this has been replaced, in some measure, by linear extraction, further modified by suction. Each of these methods presents certain advantages and certain risks. The method for gradual absorption is the most simple and easy of performance, and in the end gives, perhaps the best result. The pupil being fully dilated, the capsule is fairly opened with a fine needle introduced through the cornea, so as to expose the lens substance to the solvent action of the aqueous humour ; the pupil is kept dilated ; and, at the end of six weeks or two months, if the opening in the capsule have closed, the same process may be repeated ; and when all the lens matter is absorbed, the capsule, if any opaque part remain in the field of vision, must be torn through. Should all progress favorably, a clear, round, moveable pupil remains, offering the best result that art can secure. The risks of the operation are, firstly, a sudden swelling of the lens from too rapid absorption of the aqueous humour in

its substance, giving rise to severe pain and to considerable hardness of the globe, a condition which may be best designated as acute traumatic glaucoma. Unless this symptom be speedily relieved, by performing iridectomy and allowing some of the lens matter to escape the eye is in imminent danger of being sacrificed, and even under the most favorable circumstances, only a partial success will be obtained; or, again, portions of lens matter may accumulate in the anterior chamber, or there may be a sudden displacement of one or more fragments, which by pressing upon and irritating the iris, may give rise to pain and inflammation, and threaten the success of the operation. With a view to relieve this condition, an effort must be made to extract the offending fragments. These various *contretemps* have led some oculists to adopt a different method of procedure : a plan known as linear extraction is substituted. It consists of two stages. In the first place, the cataract and its anterior capsule are freely broken up, and they are allowed a few days to become macerated and softened by the action of the aqueous humour. In the 2nd place, an opening is made in the cornea ; and then by means of a syringe suitably constructed, the soft matter is drawn or sucked out, so as, if possible, to remove every particle of the macerated lens. This operation has the advantage of rapidity, and in skilful hands often produces very excellent results ; but it is by no means free from risk, and seldom leaves the pupil round and free. On the whole, after having extensively tried both plans, and after having watched the results in the hands of others, I am disposed to revert to the old slow method, reserving linear extraction for those cases in which the fragments are setting up serious irritation, or for a few exceptional cases in which the saving of time may be a great object. as regards the treatment of the same group of cases in adults, similar methods must be adopted. At the same time it should be borne in mind that the operation of absorbing the cataract is beset with more risks than in children ; every possible care and precaution should, therefore, be taken.

In conclusion, I will state a few rules that I lay down for my own guidance in these cases, and that I venture to urge upon the attention of this meeting. In the first place, if the opacity be inconsiderable, and if the child be able to pursue his education, and compass the ordinary functions of life tolerably well, I do not urge operative interference, more especially where it would involve removal of the lens; but if a decided advantage could be obtained by making such an artificial pupil as I have described, it is so absolutely free from risk that I should advise it.

In the second place, I make it an invariable rule only to operate on one eye at a time, and for this I have more than one reason: the stake is too great to hazzard both eyes; then, a failure in one may assist us to pursue a safer, or, at any rate, a different method, if the patient or friends be willing to run the risk in the second eye; besides a failure of both eyes is such a fearful wreck— a catastrophe I have witnessed more than once, and hope never to see again. It has, moreover, occurred to me on three or four occasions in which I have operated with success upon one eye in intelligent adults, and have removed the cataract that, whilst they thankfully owned the great advantages gained by the operation, they have deliberately elected to retain the other eye in its defective state, affirming that it possessed certain qualities and advantages that were wanting in their renovated eye, and with which they were unwilling to part. As a final consideration, I may state that an eye from which the lens has been removed does not subsequently possess so good a life; it is more liable to undergo morbid changes and to perish after a lapse of years. Supported by these various considerations, I reiterate my opinion that there is a strong case in favour of operating on one eye only. Of course, if one eye succeed, there can be no objection to the subsequent performance of an operation on the other, if the state of the vision render it expedient.

In the next place, I always perform the small iridectomy already described in preference to removing the lens, where-

ever the extent of the transparent margin offers a fair prospect of improved vision, even though the result obtained be not quite equal to that which might accrue from the removal of the lens; it is so much safer, and it further has the advantage, especially with the young, that cataract glasses are not required. I look upon the substitution of an artificial pupil in the treatment of these cases as a valuable march in the progress of our science. I have patients on whom this operation was performed years ago who are engaged in active professional duties, both in the church and in the law.

Lastly, in those instances where removal of the lens is indicated. I especially insist on the importance of only operating on one eye; then I prefer the slow method by absorption; and I urge the necessity of keeping a constant watch over the case until its termination, as acute symptoms may supervene at any moment, requiring immediate and active interference. I select the slow plan because I consider it safer, because the results as regards rotundity and mobility of the pupil are usually more completed, and because rapidity should scarcely be allowed to weigh in the choice of the method.

In dealing with these anxious and very responsible cases, whatever plan of procedure we elect, and however great the skill and exprience we may bring to bear upon them, we shall inevitably meet with occasional failure. This should make us most generous in our judgment of those who encounter similar misfortunes; and, when such a sad result happens in our own practice, it is no little consolation to reflect that no element of rashness was permitted to sway our better judgment, but that every precaution has been taken which human skill and prudence could suggest.—*British Medical Journal.*

MEDICINE.

Delusions of the Insane. By J. G. Thornly, M.D., Asst. Medical Officer Leicester County Asylum.

It is recorded by Esquirol that there was a female patient at Salpetriére who fancied that she had in her intestines

all the personages of the New Testament, and occasionally those of the whole Bible. When she died an examination revealed adhesions of the intestines to the peritoneum and to each other.

In this asylum there was a male patient who had been here for many years, and who for a considerable number of years past was in the habit of stating that there was a hundred-weight of iron in his abdomen; he would occasionally put his hands to his abdomen, as if to support this weight of metal which he believed to be there, and it was impossible in any way to shake this rooted delusion. He was a strong and healthy man, and was in the habit of working daily on the farm as a labourer. This man suffered from melancholia, was often very reticent, and never communicative. Some time ago he was observed not to take his food so well as usual: he more frequently pressed his hands against his abdomen; and when standing he leaned slightly forward; but he never even once complained of pain or other uneasiness; he was persuaded to go to bed. Afterwards the symptoms increased in severity: the abdomen became very tender on pressure, the appetite failed, the pulse became weak and thready. During the whole of his illness he was very silent and uncommunicative, so that no information could be obtained by asking him questions. He died a few days after taking to bed, and a post-mortem examination revealed a perforation of the intestine, near the junction of the ascending and tranverse colon, sufficiently large to admit the tip of the little finger. Through this opening some of the liquid fæces had passed into the peritoneal cavity. There were signs of inflammatory action in the neighbourhood of, and for some distance around, the aperture, but not to the extent which might have been expected.—*Medical Press and Circular.*

Nitrite of Amyl in Angina Pectoris and Heart disease.

Dr. Hamilton Osgood, of Philadelphia, in the *American Journal of Medical Sciences*, reports some cases treated by

nitrite of amyl. In one young woman he has used no other remedy than the nitrite of amyl, to the effect of which the patient is exceedingly sensitive, so that he only uses three-drop doses, and generally during the second inhalation the patient flings herself away from the handkerchief with a spasmodic shudder. By this time, however, she is invariably relieved. The effect of the remedy upon her is unusually profound. She remains in a semi-unconscious state from one to three minutes following the final inhalation. In another young lady who was attacked in church, he found her in a convulsive condition as to limbs and fingers, and unable to respond, being apparently unconscious to the sound of his voice. The right hand was occasionally clutched over her heart. There was a very small left radial pulse as compared with the right. He administered two drops, and with the first inhalation the patient, evidently startled, began to shriek wildly, in spite of which he continued the inhalation, and was rewarded by the return of her ability to speak. She felt relieved of pain, which had been "frightful." In another young lady five inhalations of one drop each relieved her not only of the paroxysm, but also of all traces of the pain to which she had for months been the victim. Heretofore unable to move quickly, to go up stairs, or drive without additional pain, she subsequently was and has ever since been able to take long walks, dance, run up stairs and ride on horseback without the slightest sensation of discomfort.

In these three patients the closest examination revealed no affection of the heart. But a case is given of organic disease which though fatal, shows the power of the remedy. (a female, aged fifty-seven years.) The patient, when seen by Dr. Osgood, was almost in a state of collapse; face livid; surface of the body bathed in perspiration; pulses small, especially the left radial. There was agonizing pain about the heart, extending to the occiput, left shoulder, and upper left arm; singultus, globus, great dyspnœa and difficulty of speech. The heart-sounds were weak, but normal.

The organ was acting irregularly. From five-drop doses the patient experienced immediate relief, and in the course of thirty minutes resumed an almost natural look, colour returning to the cheeks, breathing becoming much freer, and the ability to speak being restored. Attacks of lesser degree appeared during the next hour, which were not relieved by hypodermic injections of morphia and a variety of powerful stimulants. The patient was growing rapidly weaker from the effects of the first paroxysm. Unwilling to continue the use of nitrite of amyl, but nothing else giving the slightest relief, Dr. Osgood again administered it in smaller quantity. It quenched the pain and permitted the patient to assume a horizontal position. He then began to give her strong doses of brandy and aqua ammoniæ every quarter of an hour, but she gradually and quietly sank into a new collapse, which ended in death four hours after the first attack.

The autopsy revealed a heart well covered with fat; valves normal; slight atheroma of the aorta ascendens; right ventricle extremely thin and flabby: left ventricle in an apparently fair condition, but rather light in colour; papillary muscles shortened and thickened; liver markedly fatty. No other organs examined. The microscope showed that the muscular tissue of the heart was in a state of decided fatty degeneration. It is probable that this condition of the heart would be accused as the cause of the paroxysms by those who believe that angina pectoris *depends* upon a diseased state of the organ.—*The Doctor.*

MASSAGE AS A REMEDY IN SURGERY.

Massage or kneeding or champooing is regarded by Berghman as of the greatest benefit in joint affections. In traumatic inflammation of joints he states that it is superior to rest and antiphlogistics. When properly and continuonsly practised it promotes absorption and aids circulation. Out of 145 cases treated on this principle all were benefited and he observed that in those cases in which massage was practised early, a cure was rapidly effected.—*Nord. Med. Arkiv.*

CANADA

Medical and Surgical Journal.

MONTREAL, APRIL, 1876.

SANITARY STATISTICS.

In the Canadian House of Commons on the 20th, ultimo, Dr. Brouse, member for Grenville, moved for the appointment of a select Committee to enquire into the expediency of asking legislation with a view to constitute a Bureau of Sanitary Statistics in connection with one of the public departments at Ottawa. In the course of his remarks, Dr. Brouse made statements, some of which he will find are not borne out by facts. In speaking of Montreal, he stated that the mortality of our city was 38 per 1000, "but while admitting that the statistics were not perfect, he was prepared to think that it exceeded 40 per thousand." Leaving aside the annual reports of the death rate of our city, we will take the report of the Census for 1871, where it will be found that Montreal, with a population of 107,225, lost by death during the year 3.096. This yields a little over 28 per thousand of deaths. This we believe is much nearer the truth than the various sensational statements that have been made against the salubrity of our city, and which have apparently been adopted by Dr. Brouse without enquiry. We have on various occasions given this matter a careful investigation, and came to the conclusion years ago, that the city of Montreal had an annual death rate ranging from 32 to 36 per 1000, and that perhaps, outside of all extraneous assistance, the death rate of our city did not exceed 30 per 1000.

It must be stated that we in this city suffer from a plethora of charitable institutions. The citizens are wealthy

and liberal, and we see on all sides rising heavenward the minarets of good substantial Churches, Hospitals, Homes, and Poor Houses—what more natural than that these institutions should attract the sick and destitute of other parts of the country, a certain proportion of whom die and are buried in one or other of our cemeteries. The actual and positive death rate of the City of Montreal is not really attainable, from the defective character of our returns.

Again, Dr. Brouse assumes that out of a population of 4.000,000 in this Dominion, we annually lose by death 120,000 souls, or at an annual death rate of thirty per thousand. This is manifestly incorrect. While the death rate in cities is estimated to be large, the country districts lose comparatively few in proportion to their population.

On referring to the census of 1871 & 72, it will be observed that the entire population of the four provinces of Ontario, Quebec, New Brunswick and Nova Scotia was put down at 3,485.761, and of these there died in 1871, 47,314. We willingly admit that a very large proportion of these deaths was from preventable causes, but we will never arrive at any reliable information on this subject until the entire system of registration is changed. This appears to us, to be the manifest duty of the Federal Government and not of the Local Legislatures. It is not a subject with which the Local Legislatures have anything to do. It is not a municipal matter. If the Federal Government point out to the local authorities, that in certain localities they are losing by death a much larger proportion of their population, than under ordinary circumstances should die, it will then become the duty of the Local Legislatures to seek out the cause and apply the remedy. We have before alluded to the defective nature of our statistical returns of Births Marriages and Deaths. We are aware that in our Province of Quebec, the Roman Catholic Church will oppose secular registration, as that Church looks upon the registration of births as secondary to the ceremony of baptism, and that if it were alone necessary to enregister the births,

the Church would lose much of its power over the consciences of its votaries, or at least that their would be some waverers who would comply with the law, but refuse to expose their new-born infants to the rigors of a Canadian winters-day. In the cause of the innocents we believe a general secular registration law would save many lives.

In the course of the debate Mr. Workman observed that the mortality was largely confined to children under three, or certainly under four years of age. Had he substituted weeks or months for years he would have been nearer the truth. On this head what do we learn from the Census. Let us compare the Protestant Province of Ontario with the Roman Catholic Province of Quebec. The entire death rate in Ontario during the year 1871 is put down at 18,063. This in a given population of 1,620,851, of these there died of children under one year 4,435. In the Province of Quebec there was a population of 1,191,516, the entire death rate in that Province was 20,873, and of these there died of children under one year of age 7,133. The custom of taking a new born infant within a few hours after its birth, to a church to be baptised is, to our mind, questionable morality, and without alleging this practice as the cause of this marked difference in infant mortality between these two sections of the country, it may in all justice be regarded as a cause of that marked difference; it calls to mind the very forcible language of Malthus in his article on population, in speaking of infant mortality, he remarks: "The frail tenure by which an infant holds its life will not allow of remitted attention, and the neglect of a child by its mother at the very time when of all others it stands most in need of her care is in the event equivalent to its destruction." Again, we might reasonably expect that the Province of Ontario, with its new settlements, and extended malarial districts would show markedly a higher proportion of deaths than the older settlements in Quebec. These are interesting questions which as sanitarians and political economists, we should be capable of dealing with, but under

the present imperfect system of collecting and tabulating information on these topics it is quite out of our power.

We regret to observe that the feeling on the part of the Government was to shelve the question, but although it may be passed over or voted a bore by the Commons of Canada during the present session, it is a matter which will have to be taken up and gone into with a will some day or other. We think that the Honourable the Premier is laboring under a misconception as to the objects to be attained by Federal Legislation on this subject. The questions of house drainage or ventilation, the purity or otherwise of our water supply would form no part of the inquiry. These manifestly are matters for municipal governments to decide. But what is more especially required is a General Registration Act for the Dominion, in which we think might with advantage be included compulsory vaccination. We trust this subject will not be allowed to drop. Dr. Brouse appears to be in earnest, and he certainly deserves general thanks for moving in the matter, but it does appear that he has moved without any very definite scheme, without in fact knowing what was in reality required. Sanitary science is all very well but sanitary facts will be far more useful, and if the bureau of statistics can with a proper and rigid Registration Act draw year by year a comparison between the mortality of any two places throughout the Dominion of Canada much good will result, and we will then be in a position to seek out the causes of an increased death rate in any particular section of the country with a view to their removal.

ANNUAL CONVOCATION OF McGILL UNIVERSITY.

The Annual Convocation of McGill University was held in the William Molson Hall of the University, on Friday the 31st March 1876, for conferring degrees in Medicine and Surgery. There was a large assemblage of the friends of the University, the Hall being filled with ladies and gentlemen. Shortly after three o'clock, the members of convocation

passed through the hall and ascended the platform, and in the absence of the Chancellor of the University, Peter Redpath, Esq., took the chair.

The meeting was opened with prayer by the Venerable Archdeacon Leach, after which W. C. Baynes, Esq., B.A., Secretary, read the minutes of the last meeting of Convocation.

Professor Scott, M.D., in the absence of the Dean of the Faculty of Medicine, read the following report of that Faculty.

The total number of students enregistered in this Faculty during the past session was 148, of whom there were from :

Ontario	86	New Brunswick	3
Quebec	42	P. E. Island	5
Nova Scotia	4	West Indies	1
	United States	7	

The following gentlemen, 21 in number, have passed their primary examinations on the following subjects : Anatomy and Physiology, Chemistry, Materia Medica and Pharmacy, Institutes of Medicine and Botany and Zoology, their names and residences are as follows :

NAME.	RESIDENCE.
Armstrong, George E.	Montreal, Q.
Bell James	North Gower, O.
Boyle Albert	Charlottetown, P. E. I.
Brodie John,	North Georgetown, Q.
Burland Samuel C.,	Cambridge, Mass., U.S.A.
Cannon Gilbert	Almonte, O.
Cameron Duncan H	Perth, O.
Collison Robert	Matilda, O.
Cotton Cederic L	Cowansville, Q.
Faulkner Daniel W	Hollaway, Ont.
Fortier Alexandre	River David, Q.
Fraser Alexander C	Wallaceburgh, O.
Gillies John A. F	Summerside, P. E. I.
Greaves Henry C	Barbadoes, W. I.
Jamieson Alexander, B.A.,	Lancaster, O.
Lane John A.	Prescott, O.
Law William K	Richibucto, N.B.
Miner Frank L	Abercorn, Q.
Oakley William D	Plattsville, O.
Park George A	St. Marthé, Q.
Smellie Thomas S.D., M.A.	Fergus, O.

The following gentlemen, 34 in number, have fulfilled all the requirements to entitle them to the degree of M.D., C.M., from this University. These exercises consist in examinations both written and oral on the following subjects: Principles and Practice of Surgery, Theory and Practice of Medicine, Obstetrics, and Diseases of Women and Children, Medical Jurisprudence and Hygiene,—and also Clinical Examinations in Medicine and Surgery conducted at the bedside in the Hospital.

The names of the successful candidates, their residences and the subjects of their theses, are as follows :—

NAME.	RESIDENCE.	THESIS.
Baynes Donald, M.A.	Montreal, Q.	Bronchocele.
Campbell James	London, O.	Spasmodic Asthma.
Clarke Fincastle G. B.,	Collingwood, O.	Bloodless Operations.
Colquhoun George	Grenville, O.	Clinical Reports.
Cook Guy R., B.A,	Aultsville, O.	Bronchitis.
Cooke William Henry	Drummondville, Q.	Food.
Coyle Henry W.	Berthier, Q.	Erysipelas.
Craig Thornton	Glengarry, O.	Erysipelas.
Cream Thomas N.	Quebec, Q.	Chloroform.
Crothers William	Clarenceville, Q.	Clinical Reports.
Eberle Henry A.	Morpeth, O.	Pneumonia.
Gray John S.	Heckton, O.	Uterine Hæmorrhage.
Greer Thos. A.	Colborne, O.	Spermatorrhœa.
Hunt Henry	Notfield, O.	Clinical Notes.
Johnson James B	Weston, O.	Hospital Reports.
Lang Christopher McL.	Owen Sound, O.	Ankylosis.
Levi Reuben	Montreal, Q.	Lobar Pneumonia.
McIlmoyl Henry A.	Iroquois, O.	Typhoid Fever.
MacDonnell Richard L., B.A.	Montreal, Q.	Medical Cases.
McRae George	Renfrew, O.	Typhoid Fever.
Metcalfe Henry J.	Riceville, O.	Diabetes Mellitus.
Munro Alexander,	Montreal, Q.	Tubercle
Murray Chas. H., B.A.	Montreal, Q.	Hospital Reports.
Powell Robert W.	Ottawa, O.	Surgical Cases.
Reddy Herbert L., B.A.	Montreal, Q.	Hospital Reports.
Ritchie Arthur F., B.A.	Montreal, Q	Tubular Nephritis.
Robinson Stephen J.	Brantford, O.	Typhoid Fever.
Secord Levi	Brantford, O.	Pulmonary Emphysema.
Smith William	Lachute, Q.	Alcohol.
Snider Fred S.	Simcoe, O.	Acute Artic-Rheumatism.
Stevenson Charles N.	Sarnia, O.	Clinical Reports
Storrs Arthur	Cornwallis, N.S.	Post Part. Hæmorrhage.
Stroud Charles S.	Montreal, Q.	Syphilis.
Young Philip R.	Clarenceville, Q.	Hospital Reports.

Of the abovenamed gentlemen Mr. R. W. Powell is under age, however, passed all the examinations and fulfilled all the requirements necessary for graduation, and only awaits his majority to receive his degree.

The following Gentlemen, 17 in number, passed their examination in Theoretical Chemistry :

A. S. Greenwood,	Milton McCrimmon,	George W. Kirk,
James J. Guerin,	H. H. Gardner,	N. Ayer.
J. D. Cameron,	W. B. Gibson,	D. F. Smith,
F. J. Stafford,	A. P. Chisholm,	J. K. McKinlay,
M. C. Rutherford,	Robert Bell,	M. Bicksted,
J. R. Fraser,	H. N. Vineburg.	

Students who have passed the examination in Botany and Zoology :

BOTANY.

CLASS I.

W. J. Neilson,	J. Smith,	W. H. Garnder,
W. D. Oakley,	W. F. Shaw,	H. C. Feader,
B. F. Butler.	J. B. Lawford,	S. A. McDonald,
D. F. Gurd,	A. W. Imrie,	A. Henderson,
M. C. Baker,	E. McNeil,	A. D. Webster,
J. S. Brown,	J. B. Carman,	
H. Stevenson,	P. E. Carman.	

CLASS II.

J. McCarroll,	F. Hana,	H. B. Burwash,
J. G. Scott,	W. Sutherland,	C. J. Jamieson,
S. McNee,	J. C. McRae,	J. H. Smiley.
T. A. Kidd,	F. H. Mewburn,	M. Seymeur,
F. McLennan,	J. M. Wilson,	M. Beckstead.

CLASS III.

W. K. Law,	T. A. Page,	J. A. Mattice,
C. D. Bancroft,	R. C. McDonald,	G. Tate,
J. S. Edwards,	G. W. Olivier,	A. Poops,
S. R. Herbert	C. A. Weagant,	M. Karmon,
B. Menzies,	G. C. McCulloch,	W. B. Hall,
E. W. Lettree	J. E. McEvenue,	W. F. Mullen,
W. J. Prendergast,	W. D. M. Bell.	

ZOOLOGY.

CLASS I.

A. Henderson. A. D. Webster.

The Medical Faculty Prizes are three in number :

1st. The Holmes Gold Medal, awarded to the graduate who receives the highest agregate number of marks for the best examinations, written and oral, in both Primary and Final branches as also for an inaugural thesis.

2nd. A prize in books awarded for the best examination, written and oral, in the final branches. The gold medallist is not permitted to compete for this prize.

3rd. A prize in books awarded for the best examination, written and oral, in the primary branches.

The Holmes Gold Medal was awarded to Robert W. Powell of Ottawa, O.

The prize for the final examination was awarded to Charles H. Murray, B.A., Montreal, Q.

Although there are but two regular prizes given to students of the graduating class, a special prize has been awarded by this faculty to Richard L. MacDonnell, B.A., for general proficiency, and especially the excellent character of his inaugural thesis.

The prize for the primary examination was awarded to Alexander C. Fraser, Wallaceburg, O.

The following gentlemen, arranged in the order of merit, deserve honourable mention :—In the final examination, Messrs. MacDonnell, Ritchie, Young, Hunt, Smith, Secord, and Lang.

In the primary examination Messrs. Bell, Cotton, Oakley, Smellie, Jamieson, Miner, and Armstrong.

PROFESSOR'S PRIZES.

PRACTICAL CHEMISTRY. - - - D. F. Smith.

BOTANY—Neilson & Oakley. ZOOLOGY—Henderson.

PRACTICAL ANATOMY.

Demonstrator's prize in the Senior Class, awarded to William Donald Oakley.

Those deserving honourable mention for care and assiduity, Messrs. Greenwood, Vineburg, D. F. Smith, Cameron McGuigan, and Fraser.

Junior Class prize awarded to Wm. J. Neilson. Honourable mention, Messrs. Webster and McCrimmon equal. Lawford, Heard, Shaw and Stevenson equal, McCully.

The graduates were then called forward and the *Sponsio Academica* was administered by Professor Craik, M.D., and each in turn presented to Vice Chancellor Dawson, who performed the ceremony of Capping, and delivered to each candidate his diploma of Doctor of Medicine and Master of Surgery.

At the conclusion of this ceremony Dr. A. F. Ritchie delivered a valedictory address on behalf of his associate Graduates. Dr. Roddick, Professor of Clinical Surgery, then addressed the graduating class on behalf of the Medical Faculty.

After the proceedings of the Faculty of Law, and an address from Mr. Justice Torrance, the benediction was pronounced by the Rev. Dr. Wilkes, and the convocation adjourned.

Case of Sphacelus of the Thyroid Gland, Recovery of the Patient. By the late GEORGE G. GASGOYEN, F.R.C.S.

At a meeting of the Royal Medical and Churgical Society held February 8th, 1876 the particulars of a case was submitted of idiopathic inflammation of the neck, occurring in a healthy man aged 38 years which was followed by death of the thyroid body and extensive sloughing of the connective tissue of the part. The patient made a rapid recovery and had since suffered no discomfort of any kind from the absence of the gland. The great rarity of such cases was alluded to, various German practitioners had placed on record a few examples of a similar nature. Lebert in his work on "Diseases of the Thyroid gland" refers to several similar cases and gives the particulars of two in which the symptoms and course of the disease were almost identical with the case under discussion. Four of these cases recovered and although the destruction of the gland was complete they did not in any way experience inconvenience rom its loss. This would lead to the supposition that in the adult the thyroid body ceases to possess much functional importance.

CANADA.

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Valedictory Address to the Graduates in Medicine and Surgery, McGill University, delivered on behalf of the Medical Faculty, at the annual convocation, held in the William Molson Hall of the University, on Friday 31st March, 1876. By THOMAS G. RODDICK. M.D., Professor of Clinical Surgery.

GENTLEMEN GRADUATES:—In accordance with a time-honoured custom I am here on behalf of the Medical Faculty of this University to convey to you their hearty congratulations on being this day the recipients of the highest honour which it is their privilege to bestow.

After a long, and in the main, a tiresome race, lasting over four years, you have at length reached the winning post, and are here to-day in the presence of a gracious and admiring assembly to be decked with the laurels you have so nobly won. In no race can all be first, but on this occasion the judges have unanimously ruled that you were all "on time." The goal at which you now stand is however not the last by many on this great course. You have completed the first heat only, the prizes for which alone are offered and distributed here, so that there is abundance of time for even the last man to pick himself up and show a brilliant record on the great home stretch. Remember that in the future the struggle ceases to be a college contest where as companions you are pitted against each other.

You are soon to meet well-trained and more determined competitors who will try your mettle to the very uttermost. However, of this be assured, if it may prove any stimulus to you, that wherever this Faculty, as your trainers, find a man of '76, running a fair and honourable race, they will always be prepared to back him against all comers.

You are to be congratulated, Gentlemen, not only in having graduated in Medicine, but in having done so at such an auspicious period in the history of the profession of your choice and in the history of our country. There never was a time among us in this Dominion, when energetic workers, honest conscientious men were in greater demand. It is certainly time to be up and doing when we have one of the chief leaders of public opinion in our midst—a journal of which we would have expected better things—upholding the cause of quackery, and imputing to us the basest motives because we dared to vindicate our rights, and raise a warning voice on behalf of a deluded people. The Toronto *Globe* asserts with an air that can hardly be mistaken for earnestness, that to molest these charlatans in their absurd and often nefarious practices is an unwarranted interference with the "liberty of the subject." It positively contends that any one who considers himself competent either through some inherited charm or from mere vanity, to treat the various troubles of the flesh to which humanity is heir, should be allowed to do so unmolested. The evil consequences of such a policy cannot be estimated. It is difficult to understand, indeed, how it should find so strong an advocate in this otherwise respectable mouthpiece of public opinion. The *Globe* in its endeavour to place us all on a level with the itinerant mountebank must evidently be a firm believer in the theory that some men are "born doctors." This journal of such communistic proclivities in matters medical, chooses to ignore the time and pains we have expended, and the pecuniary outlay we have made, in endeavouring to acquire a thorough knowledge of our profession, so that we may the better inspire an ever credu-

lous public with our ability to heal. Unfortunately the great majority of suffering humanity are unable, from their total ignorance of pathology, to discriminate between those diseases which, humanly speaking, are absolutely incurable, and those on the contrary whose tendency is towards a favorable termination. Hence these naturally fall a prey to the machinations of the unprincipled charlatan, who with vain deceit leads on his victims to their physical ruin and worldly embarrassment. Forsooth, we are told, that to raise a warning voice, and endeavor by legislation to rid society of such members is to interfere with the liberty of the subject. It is not jealousy that impels us in our action against those clever rogues who can amass riches when honest men starve,—give us our due, it is not jealousy,—but an honest desire, irrespective of our profession, to protect our fellows from fraud. It has been well sung:

> "When men of infamy to grandeur soar,
> They light a torch to show their shame the more;
> Those Governments that curb not evils, cause;
> And a rich knave 's a libel on our laws."

You are called upon then, Gentlemen, on the very eve of your professional birth to do battle for legitimate medicine. This refers especially to those of you whose lot will be cast in the neighboring Province of Ontario, which seems to be the favorite haunt of those proteges of the *Toronto Globe*.

The influence which many of you must of necessity wield in a few years, cannot better be employed than in assisting to stock the legislatures of your respective Provinces with men, either professional or lay, having decided and intelligent views on the all-important subject of medical legislation. The fact is we are nowhere as well represented at Court as we might be. We are not the power in the state we should be. It is true there are members of our profession in our General and Local Parliaments, but with a rare exception, how feeble are their voices when we would expect to find them loudest in debate. There are two or three who do us credit, and whom we delight in honouring,

but even they, after long political careers, fighting their party battles, or from other causes, have become estranged from us, and are more famous as financiers and expounders of the law than as sons of Æsculapius. Besides, our services I contend, are required in the Assemblies of the country as much on her account as on our own. Those great measures of sanitary reform which must in the natural course of things be promulgated and at length accomplished,will of necessity be in great part the work of our hands. Who than we can better direct the enactments respecting vital statistics, vaccination, and the proper ventilation and drainage of cities ? Who than we can better advise measures for the prevention of epidemics, and the grappling with them when they appear ? Who than we can give more decided opinions on all subjects having a sanitary bearing ? It is our province, it belongs by right and title to us, and while the financiers of our legislatures are squabbling over their dollars and cents, and "ways and means," while the manufacturers are keeping a weather eye open to the tariff, let us have men there who, irrespective of party, conservative and liberal, tory and whig, will rally round the one flag when the war note is sounded. " Sanitas sanitatum omnia sanitas."

As medical men, and taking as you no doubt will a prominent place in the communities in which you work, you will be expected to give a ready and intelligent opinion on the various topics of the day having reference to sanitary science. The relation of defective drainage, impure water, and adulterated milk, in the causation of Typhoid fever, will come up for constant discussion. The subject of overcrowding, adulterated food, impure air, occupation, &c., in the influence they exert in modifying existing disease, and in the production of disease, will be matters on which you will be expected to be thoroughly versed. There is nothing however in the discussion of which your temper and ingenuity will be more sorely tried than in the defence of that priceless prophylactic, *vaccination*. Have at your finger ends some of the more familiar facts connected with this all

important subject, in order to meet the objections of those who have unfortunately imbibed erroneous conceptions on the subject. Relate to them, for instance, the telling observations of Drs. Buchanan and Seaton on 50,000 children during the epidemic of small-pox in London in 1863. How of every 1000 children without any mark of vaccination, no fewer than 360 had scars of small-pox; while of every 1000 children who had evidences of vaccination only 1·78 had any such traces. With regard to the quality and amount of the vaccination it was found that of children having four or five scars, only 0·62 per thousand had any trace of small-pox. How it was found that the best vaccination was more than thirty times as protective as the worst, and the worst was more than fifty-seven times better than none at all. Tell them that in the city of Montreal, during the last year of your studentship—the year 1875—the total number of deaths was 6,311, of which nearly one-eighth, or 784, were from small-pox, and of these 653 were unvaccinated French Canadians. If such facts fail to make an impression on these unbelievers, tell them that in the year 1874 there were 55 unvaccinated persons admitted into the small-pox wards of the Montreal General Hospital, of whom all, five excepted, had the confluent form of the disease and 28 died, showing the awful mortality in the unvaccinated of over 50 per cent. On the other hand, among those who had been once properly vaccinated, there were only four deaths, and where revaccination had been successfully performed, only two cases had been admitted, and these were of so mild a type that but for the danger to others, the patients might have followed their ordinary avocations. You will meet many who are thorough believers in vaccination as a preventive against the virulence of small-pox, but who are haunted with the idea, that other constitutional diseases are propagated through the medium of the virus employed. To such I would recommend you, to quote in refutation the observations of Dr. Curschman of Berlin, one of the most reliable authorities and probably the most recent observer on this

division of the subject. He says: The possibility of the transmission of a disease through vaccination has thus far been demonstrated in but a single instance, and that is *syphilis*. Could the opponents of vaccination show that this occurs with any degree of frequency, or is with difficulty prevented, vaccination would thereby receive a severe blow ; but here lies the weak point in our opponents' deductions. In the first place, those cases where the actual inoculation of this disease has been verified are so exceedingly rare that the objections based on them are consequenly materially weakened. The force of these objections is still more impaired by means of the evidence almost always present that the unfortunate result was due to actual carelessness, or to an oversight easy to be avoided. Nearly all of the unhappy occurrences of this sort are not the fault of vaccination, but of its improper performance.

Endless evidence could be brought forward to sustain your position as an advocate of the cause of vaccination, but what I have related will stand you in good stead if taken unawares by our wily opponent.

Speaking to you, Gentlemen, as an elder brother, I would remind you of the important position in society you this day assume. While before you gloried in a condition of absolute irresponsibility, you will have from this hour forth the piercing gaze of a world, not over charitable, directed upon you. Like a child leaving for the first time its mother's lap to waddle alone, you are at this moment commemorating the dawn of an independent existence. You have to-day received from your Alma Mater your commission, with her seal attached, to pursue the responsible and arduous task of caring for the life and health of your fellow mortals. Yours is a glorious mission. The profession you have chosen,—"blessed art of healing over again divine," is worthy of your proudest devotion—"ennobled as it is by endless examples of the most heroic self-sacrifice, and offering full scope for the exercise of the highest intellect, the purest philanthropy, the proudest ambition. Prove yourselves worthy members

of so honorable a brotherhood. Above all other things forget not the solemn vow you have this day taken and which is still so fresh on your lips, to render your services cautiously, virtuously and honestly, with wisdom, chastity and integrity. I stand here, Gentlemen, on this account more than on any other to implore you in the name and for the sake of this great University, in the name and for the sake of our common humanity, on behalf of all that is near and dear to yourselves, to pursue a course of prudence, sobriety and honour.

As the majority of you will have ample leisure during the first few years of your professional life, it cannot better be employed than in the endeavour to bring up the leeway—to work up those points on which you now consider yourselves weakest, and at the same time to keep pace with the progress of medical science. On the manner in which you spend these early years will depend to a large extent your future success in the practice of your profession. Every case which you are called upon to treat, no matter how simple in itself, should be made your earnest study, so that after a time you will have become accurate observers, and will have stored up certain definite facts in the diagnosis and treatment of disease, which will stand you in good stead later on in life. Medicine, especially in some of its departments, is progressing with such gigantic strides towards perfection, that in order to keep in line and not be numbered among the stragglers, it will be necessary for you to consult from time to time the more advanced authorities, and at the same time to subscribe to the leading periodicals of your own and mother country. Encourage home manufacture in medical literature, when deserving, not only by your pecuniary support but by the contribution of original matter culled from your own practice. By so doing you will not only benefit your fellows, but you will escape that painful obscurity—that species of living death—into which so many of our profession fall. I would caution you sedulously to avoid anything approaching what has been styled "news-

paper quackery," or the system so constantly practised among country physicians (and not unknown I am sorry to say, in some of our large cities,) of publishing or allowing to be published thrilling accounts of their surgical operations or wonderful cures. Such a course is not only unprofessional, but publications of this nature have a demoralizing influence on those who read them, and the cause of medicine suffers materially thereby. Medical contributions should see the light only through the medical press.

In your intercourse and dealings with each other remember the golden rule "do unto others as ye would others should do unto you." You will find as a rule, and especially in the early years of your career, that you have to deal with a selfish uncompromising public, who in the endeavour to have their own purposes served, care not for your feelings or friendship, and heartlessly ignore those rules of professional etiquette which it should be your duty as well as your privilege to sustain. It sometimes happens that misunderstandings will occur in the most careful hands, but do not willingly tamper with the property of another. Let us earnestly hope that the game of grab, so long practiced in country places between members of our profession, has been played for the last time. To you and future graduating classes we will look to elevate the standard of professional morality far above any height in this direction it has yet attained.

In all cases of doubt, or where you have the slightest suspicion that the former confidence of patient and friends in your skill and judgment is being lost, fail not for the satisfaction of all and your own protection to call in other aid. In your capacity of consulting physician also caution, is demanded, for in your hands here will often rest the renown and reputation of a confrere. One of those ominous shakes of the head, or a shrug of the shoulder will in a twinkle destroy the credit of a brother and to you will be born a false unenviable reputation. Be true then, one to another, remembering the wholesome advise of Polonius:—

"This above all,—to thine own self be true;
And it must follow, as the night the day,
Thou can'st not then be false to any man."

To the poor be kind and charitable in the disposition of your professional services. The poor man bowed down by infirmities will demand a large share of your sympathy and support. It is true his poverty may be self-imposed, but your obligations are none the less binding. "Whoso seeth his brother have need and shutteth up his bowels of compassion, how dwelleth the love of God in him." In the language of an eminent divine: the poorest of you can afford to be kind; the least gifted of you can practice that loving wisdom which knows the straightest road to human hearts. You may not be able to thrill senates with your eloquence, but you may see eyes sparkle and faces gladden when you appear. Men will feel your influence like the scent of a bank of violets, fragrant with the hidden sweetness of the spring. Men will miss you when you cease from their communions as if a calm familiar star shot suddenly and brightly from their vision; and if there wave not at your funeral the trappings of the world's gaudy woe, "eyes full of heart-break" will gaze wistfully adown the path where you have vanished, and in a long aftertime hearts which you have helped to make happy will recall your memory with gratitude and tears.

Gentlemen: Fare you well.

Case of Severe Syphilitic disease of the Rectum with Stricture.—Colotomy.—Successful. Under Dr. Ross. Reported by Mr. C. N. Stevenson.

Zoe S., 31 years, was admitted into the Montreal General Hospital on the 23rd September, 1875, complaining of severe sacral pain and excessive suffering during the act of defecation. She is a small woman, decidedly anæmic, but not unusually thin. Her family history is good with the exception of one sister who died of rapid consumption, and

another who is an habitual sufferer from Spasmodic Asthma. She has herself enjoyed good health until about five years ago, when she contracted syphilis from her husband. She is not aware of this primary sore having been followed by either sore throat or any general rash. Two years afterwards, however, she began to suffer from symptoms referable to disease in the rectum, and for this was treated by a surgeon of this city, with the result of becoming much better. The disease had, nevertheless, not been entirely cured, for one year subsequently, she came under the care of Dr. Ross with renewed trouble in the same quarter. She had at this time a moderately tight stricture of the rectum, and considerable thickening of the submucous tissues. Gradual dilatation by means of graduated bougies, together with a long course of internal anti-syphilitic treatment, again gave temporary relief. The stricture, however, soon began again to contract, and her sufferings in proportion to be augmented. She therefore resorted to the hospital to try and seek a cure.

Her condition at present is one of great distress. At ordinary times, and when at rest she does not suffer much beyond a certain amount of pain of a dull character in the rectum itself, and sometimes more severe pains of a somewhat colicky nature in various parts of the abdomen. It is however in connection with the periods of defecation that by far the greatest amount of suffering occurs ; for some time previous to this the pains ordinarily endured became very much increased, and then during the actual passage of fæces her sufferings are perfectly agonizing, often producing great faintness and exhaustion. The pain is of a hot and burning character, described by her as a feeling as though molten lead were running down the bowel. This pain occupies the whole region of the rectum, radiating also outwards through both hips and sometimes extending down the thighs. It does not cease after defecation is completed but continues, keeping her in great suffering for sometimes several hours. There is a slight brown-coloured watery discharge from the rectum, without any peculiar fetor.

There is very seldom any appearance of blood with the evacuation, but this has occasionally been observed in small quantities. The stools are generally of moderate consistence, and come away in small irregular pieces, often flattened.

On making a digital examination it was found that the rectum was involved in the whole of its calibre by a dense cartilaginous, irregular mass. The obstruction began about one inch within the anus, beyond which lay two distinct strictures, through both of which the finger could be just passed. At the extremity of this again and just as far as the finger could well reach, was felt another but smaller opening through which the finger could not pass at all. The examination gave a great deal of pain. A No. 2 Rectal bougie was subsequently passed, and was found to be just the size of the uppermost constriction.

Ordered: R. Potass Iodid ℥i; Syr. Ferri Iodid ℥vi; Aqua ad ℥vi.

One tablespoonful three times a day, and to have a bougie passed daily, gradually increasing its calibre, if found practicable.

Oct. 17.—No result so far from treatment. Have only increased one number of the bougies, and the introduction is extremely painful. Complains of having had for some nights severe sweats. Chest examined and found to be healthy. Ordered a pill containing gr. ij. Zinci oxyd., to be taken each night at bed-time, and to have three tablespoonfuls of cod-liver oil every day.

Oct. 25.—Obliged to discontinue the use of the bougies on account of the great pain produced.

Nov. 1st.—Patient continues to suffer very much. Describes her torture as unendurable, and is willing and anxious to submit to any treatment which might offer prospect of relief. Under these circumstanees, and especially considering the hopelessness of ever curing such a rectum, now composed of hard, unyielding, almost cartilaginous masses, Dr. Ross decided upon performing colotomy in the left loin,

provided his colleagues agreed with him as to its advisability. She was therefore seen by Drs. G. W. Campbell, Fenwick and Roddick, who all concurred in this view of the case.

Nov. 11th.—After consultation of the entire staff of the Hospital, the operation was performed as follows: Drs. Fenwick and Roddick acting as assistants. The patient having been brought fully under the influence of ether, she was laid upon her right side, and a firm pillow placed beneath the abdomen, so as to render the left loin prominent. The operator had taken the precaution to mark, as recommended by Mr. Allingham, a spot midway between the two iliac spines to serve as a subsequent guide. An oblique incision was then made, 4 inches long, in the usual situation, and the dissection continued upon a director until the edge of the Quadratus Lumborum was distinctly exposed. This was then moderately notched, and the bowel was found, as always, directly beneath it. It was not easy to distinguish the longi udinal markings which are characteristic of the large bowel, and besides it was empty and flaccid (because there had never been any complete obstruction). The operator therefore being without these two important guides as to what lay before him, to increase his assurance of the identity of the part, requested an assistant to force air into the bowel by means of an ordinary enema syringe. This was quickly done, and, as it was effected the bowel rose fairly up into the wound. This then was seized and transfixed. The peritoneum was seen but hardly at all exposed and no difficulty was experienced in avoiding it. The bowel being then well drawn out, it was transfixed by a second catgut ligature, the two being about one inch apart. An incision of that length was made into the intestine, and its edges were stitched to the sides of the wound. Other catgut sutures were also introduced at either extremity of the wound. The position of the intestinal opening was found to be very close to the posterior angle of the wound. A dresssing was applied consisting of a layer of doubled lint

soaked in carbolic oil (1 to 20), and a thick covering of fine oakum and a flannel roller.

She was put to bed and ordered to have, after a time, frequently-repeated very small quantities of beef tea and milk, and to take pulv. Opii. gr. i every 4 fours.

9 P.M.—Has been pretty comfortable with the exception of some uneasiness in the abdomen. Temperature 102 2-5. Pulse 136°, rather wiry, with a tendency to irregularity. Expression dull and anxious-looking. Is kept moderately under the influence of the opium. No abdominal pain. No vomiting. Moderately tender on pressure over the left side of the abdomen in front. Had a slight chill last evening—wind has been passing to-day through the artificial opening. Complains of a bad cough, (this was evidently caused by the ether.) Wound looks well.

9. P.M.—Temp. 103 3-5°. Pulse 130.

Nov. 13th.—Temperature 103 3-5°. Pulse 130; softer and more regular. Expression much better. Abdominal tenderness less. Tongue moist and clean.—Wound looks well.

9 P.M.—Temperature 100 4-5°. Pulse 104.

Nov. 14th.—Much better, Temperature 101 4-5°. Pulse 112. Finds the opium beginning to tend to nauseate. Was therefore ordered instead Sodæ Bicarb. gr. v. Liq. Morphia, 3ss. every 4 hours. No tenderness on pressure. Cough still very troublesome, and accompanied by a considerable amount of expectoration. Wound looks very healthy, with a moderate amount of suppuration from it.

9. P.M.—Temperature 102°. Pulse 108.

Nov. 15th.—Temperature 102 1-5°. Pulse 102. Quantity of Liq. Morph. reduced to gtt. xv. For the first time passed this morning a small motion from the artificial anus. All the ligatures holding the bowel were withdrawn to-day. Cough much better. Was ordered 3 oz. port wine.

Nov. 16.—Doing well. Temperature 100 1-5.° Pulse 104. Wound discharging pretty freely. A small compress was arranged on the posterior portion of it. Feculent mat-

ter keeps passing readily by the new opening. Appetite improving. In good spirits.

Nov. 17th.—Temperature 101°. Pulse 104.

All the remaining sutures were removed and the wound held together solely by strips of adhesive plaster.

Nov. 18.—A good deal of tenderness about the back part of the wound, and pus wells up pretty freely upon pressure here. Cough still somewhat troublesome, and causes a good deal of pain about the wound. Slept well but perspired very freely on first awaking this morning.

Nov. 19. — Temperature 99°. Pulse 100. Two easy motions through false anus.

Nov. 20th.—Temperature 98 2-5°. Pulse 100. Ordered Ung. Zinci oxyd to be applied round the margins of the bowel, as the acrid oozing from it is tending to excoriate the skin. The wound is to be syringed daily with carbolic acid lotion, (1 to 40).

Nov. 21st.—Comfortable and cheerful. Wants to get up. Was allowed oysters.

Nov. 22nd.—Discharge much diminished ; wound healing nicely. Temperature normal. Pulse 90. Cough nearly gone.

Nov. 24th.—Was allowed up to-day for the first time.

Dec. 1st.—Doing well. Fæces being discharged in moderation several times daily. To-day a small motion also passed from rectum but seemed to cause no pain. There is a slight tendency to prolapse of the mucous membrane. A graduated pad of lint was therefore ordered to be applied.

Dec. 7th.—No re-appearance of prolapse, and pad discontinued. Has been somewhat constipated lately, and was therefore ordered Pil. Rhei, Co. No. iij, at bed time.

Dec. 15th.—No discharge from wound. It is nearly quite healed. Sits up and begins to feel quite strong.

From this time she remained perfectly well. The artificial anus performs its office quite satisfactorily, and she is entirely free from pain. She was provided with an instru-

ment for the purpose of closing the opening, except when an evacuation was required. This was composed of an oval and convex block of box-wood, made just to fit into the opening, and pass obout ¼ of an inch within it. This was attached to a broad, flat pad, and the whole retained *in situ* by suitable straps. Discharged 15th January, 1876.

Cases of Acute Articular Rheumatism treated with large doses of Salicylic Acid. By R. D. MACARTHUR, M.D., C.M. Chicago, Ill.

CASE 1.—*Acute Inflammatory Rheumatism.*

W. N. B., aged 29, was the subject of an attack of Inflammatory Rheumatism, precisely three years ago, affecting all the joints and complicated with endocarditis, the attack lasting six weeks.

March 1st, 1876.—Found patient in bed with several of the larger joints affected, very emaciated, and great debility from riotous living and dissipation.

Was immediately put upon the Alkaline treatment, with Iodine applications to the swollen joints which were rolled up in cotton batting; this was continued with tonics, nourishing diet, &c., for 15 days, my patient becoming weaker, and th erheumatic difficulty growing worse from day to day.

March 16th.—Patient very much depressed in spirits; haggard countenance. Anæmic murmur at base of heart, and every joint in the body affected with rheumatism.

All previous treatment discontinued. Was ordered 10 gr. doses of Salicylic acid every 2 hours, in wafer paper, commencing at 10 a.m.

Met Professor Allen at 7. P.M., in consultation; found patient very much improved, countenance quite bright, and the stiffness and soreness of the joints very much diminished.

Professor Allen very kindly consented to give the Salicylic acid a fair trial, although he had no faith in it.

17th.—Patient exclaimed on my entry into his room that

he had no use for me, the rheumatism was all gone. Had slept well all night, for the first time since the illness began, except when to take medicine. Prior to this, he had used Potass. bromide. Pulv. Doveris, &c., to procure sleep but little benefit resulting from them. Had now taken 120 grains of the acid, with no unpleasant effects, except hyperæsthesia in hearing

On account of illness, did not see my patient for five days after this, when I learned that the day prior he had some rheumatism in his left shoulder, elbow and wrist. Ordered the acid to be repeated, he now took 240 grains additional, with entire removal of all rheumatic symptoms. From this time forward no relapse occurred, and his recovery was rapid and permanent.

The treatment followed is that of Dr. Stricker, of Charité Hospital, Berlin.

CASE II.—*Polyarthritis Rheumatica cured in* 36 *hours*. 360 grains of the acid administered in 10 grain doses consecutively.

M B. Thompson, aged 46, came to Chicago last Fall from Alabama, where he had been a victim of Yellow fever and Intermittent ; had the last disease almost continually for the past three years, whilst living South.

March 26th, 1876.—Arrived at patient's house at 4 p.m. Found him unable to stir hand or foot, or turn over in bed. Face flushed. Temperature 104.6°. Pulse 136 ; respirations 27. Tongue coated. Suffering most acute pain in all his joints, which were very tender and swollen, even the carpal and phalangeal articulations were greatly swollen. Immediately prescribed the acid in 10 grain doses, to be taken every two hours. No other medicine.

27th. 10. A.M.—Temperature 101°. Pulse 97. Slept well after 2 a.m. ; joints could be moved freely without producing much pain. Swelling diminished, tongue moist, perspiring freely. The acid to be continued.

28th.—Pulse 80 ; temperature 99°. Swelling of joints entirely disappeared, could be freely handled and moved about, without producing the slightest pain. Ordered the acid to be continued every 4 hours. This was my third and last visit, as my patient's wife reported from day to day his condition. The acid was continued, until he had taken 360 grains in all, when the rheumatic symptoms had completely subsided.

On the 8th day of the attack was put upon a tonic mixture of Iron and Quinine. His convalescence was rapid. Walked around and about the house on the sixth day. No toxic effect from the drug, except singing in his ears, and considerable dullness in hearing.

Chicago, Ill., 11th April, 1876.

On the use of Oleum Erigerontis Canadensis in the treatment of Gonorrhœa By G. A. STARKE, M.D., C.M., Milwaukee, Wis.

I desire to call your attention to a remedy which I have been using for some time back, (4 years) in the treatment of Gonorrhœa. I refer to the Oil of the Canada Fleabane—Oleum Erigeron ; Canadensis. I am not aware that it has been brought prominently before the profession as a remedy in the above-named disease. Its properties are very briefly noticed in works on Materia Medica, and as far as I am aware it is not mentioned as a remedy for Gonorrhœa in any of the text-books. The results in most cases in which I have prescribed the oil, the patient adhering strictly to directions, have been entirely satisfactory, and in some cases astonishingly so. In the majority of the cases the discharge ceased in from two to six days. I have only taken notes of its effects in what I considered true cases of Gonorrhœa. After having administered some suitable purgative, generally saline, I then exhibit the medicine in doses varying from five to twenty drops, every two, three or four hours, as judged most prudent in each particular

case. I have also given the oil in several combinations. The diet is also to be carefully regulated.

If you consider this worthy of notice, and wish reports of some cases treated by the oil—setting forth the combinations in which I have administered it—I will gladly send them.—*Milwaukee, Wis. April*, 1876.

We cheerfully record Dr. Starke's observations and shall be pleased to hear from him again on this subject.—Ed.

TRANSLATIONS.

Dr. von Dessauer (of Valparaisso)—Passage of an unusually large gall stone (Virchow's Archiv. Bd. lxvi. Hft. 2.)

On the 12th December, 1873, I was called to see a French lady, Madame ——, who had been ill two months, and under the treatment of Dr. Allende, who, on his departure, handed her over to me. Of the previous history and treatment I could obtain nothing certain, further than that the lady had several times suffered from jaundice and severe colic. She had never borne children. On the present occasion her suffering was beyond all description—she screamed and roared with pain, rolling and writhing on the ground. For 11 days she vomited everything, even the fæces, and for 14 days had had no passage from the bowels. I found the patient of a dark-yellow colour, with deep set eyes, and a a face betokening inexpressible anxiety ; the body covered with a cold, clammy sweat ; pulse not to be counted from its rapidity, thready and weak. In the hepatic region at the margin of the ribs was a very painful tumour about the size of the fist. The whole liver was enlarged, painful on pressure and percussion. A second such tumour, twice the size of the fist, of doughy consistence, and tolerably painful, existed in the region of the Valvula Bauhini (ileo-cæcal.) My diagnosis was biliary colic, produced by the impaction of calculi in the ductus choledochus and Valvula Bauhini, and it was presumed that the concrements were either very large or very numerous. Seeing that no medicines could be taken by the mouth—everything was vomited—and that

subcutaneous injections. chloroform, baths, &c., had been used in vain, I determined to employ opium in large doses, in order to aid the passage of the concrement by the possible relaxation of the circular fibres of the intestines. At the same time small bits of ice were given.

After a terrible night, and after the employment of 11 clysters, each of which contained 6 grs. of opium, I had the satisfaction about noon the next day of obtaining several copious biliary stools, and on examining the patient the tumour in the hepatic region—corresponding to the gall bladder—and also the one in the right inguinal fossa had disappeared,

On washing out the stools, a calculus, the size of a walnut, was found. The stercoraceous vomiting had entirely ceased. The patient was quite comfortable, felt hungry and partook with relish of fluid nourishment. The pulse became normal.

On closer inspection the stone was seen to have a roundish, conical, somewhat pyramidal form, and presented at the base some smooth facets. I concluded from the general appearance that a second equally large stone existed, either in the gall bladder or had already passed the common bile duct. There was thus another attack to be expected, and I determined quietly to await the same, and meanwhile suspended the treatment.

Although the large dose of 66 grs. of opium had been given in the 24 hours, there was no symptom of poisoning evident.

On the 14th December, a fresh swelling began to form in the region of the ileo-cæcal valve, and by degrees all the above described symptoms quickly recurred. The second stone had made its way through the ductus communis choledochus and stuck fast in the intestine at the point indicated. I repeated throughout the 15th December the above treatment; there were six clysters employed, (one every third hour) each with 6 grs. of opium. On the night of the 15th and 16th, with spasmodic vomiting and evacuations, the second stone, almost as large as the first, was expelled.

The after treatment corresponded to the indications. I gave Durand's remedy, (ether 3iii. ol. terebinth 3ij. 3i every morning), and Vichy water. The patient recovered in a few days, and the jaundice disappeared with remarkable rapidity. I sent her to the Baths of Canquenes; when leaving she weighed 112 lbs., on her return six weeks later, 138 lbs., and meanwhile had enjoyed perfect health. It is worthy of note that the large doses of opium 6.5 grammes = 102 grs. were borne without any symptoms of poisoning.

The two stones are egg-shaped, smooth, pyramidal at the points. One facet is concave, the other convex. Together they are about the size of a small hen's egg, measuring 9½ Cm., (3¾″) in circumference, 15 Cm. (6″) round the long diameter,and weighed 22.5 grammes. The surface is smooth and of a dark brownish-yellow colour.

When we consider the size of these stones and the diameter of the gall ducts, it appears inexplicable how they could be forced through such a narrow canal without producing extensive destruction of the same.

Note by Prof. Virchow.—I have received through Dr. Boher the above stones, which consist of cholesterin and bile pigments, and have been correctly described by Dr. Dessauer. As to the question how they passed through the gall ducts, it may be said that it could only be possible by ulceration of the bile ducts or gall bladder, and direct perforation of the duodenum, and not by dilatation of the ductus communis choledochus. Pathological experience affords many proofs of this. The passage of such large stones during life is a very unusual occurrence, and I thank Dr. Dessauer for his communication.

Note.— A somewhat similar case to this occurred in the spring of 1873 in the practice of Dr. Archer, (McGill) then of Osnaburgh Place, now of Wandsworth, London, in which after symptoms of obstruction, lasting over a week and of great severity, a large gall stone was passed. It was single, of an elongated form, and, as far as I remember, corresponded very closely in size to the one above described, i. e., about

the size of a small hen's egg. In this case there was, I believe, no tumour perceptible. Instances of this kind are extremely rare. On looking up the subject for Dr. Archer in the British Journals I could only find reference to some half dozen cases.

W. O.

Krönlein, Open and Antiseptic Treatment of Wounds.— Results of the two methods of treatment compared from Statistics furnished by the Clinics of Zürich, Leipsig and Halle. Archiv. f. Klin. Chir. xix. S. I.

The comparison of the two methods confines itself to the major amputations of the extremities, the conservative treatment of complicated fractures of the long bones of the extremities and extirpation of the breast. Further, the comparison extends to the most important accidental wounds, when they are met with within the period, in which it has been customary to employ the above mentioned methods of treatment.

Referring to amputations of the extremities, the tabulated summary gave a mortality of 30 per cent. where the after treatment had been antiseptic and only 20 per cent. where the open method had been employed. The number of traumatic amputations was about half in both sets of cases, so that here as little as the difference of sex and age, can the difference in mortality be accounted for. The relative difficulty of individual cases of amputation due to severe injuries, and the length to which the conservative treatment had been pushed might account for the difference in the mortality. Of the cases of complicated fractures amputated and afterwards treated antiseptically, 41 per cent. were accompanied by dislocation, those cases treated by the open method only 29.4 per cent.

Krönlein says, that the results of amputations treated by the open method are better, this can only be ascribed to the after-treatment, though in cases treated by this method the conservative treatment has been pushed to a greater extent

than in those cases treated antiseptically. We can only compare the statistics of the results of the conservative treatment of complicated fractures, in fractures of the leg ; here we have 13 cases treated antiseptically, with no deaths, and 31 cases treated by the open method, with 9 deaths. This unfavorable result in the latter mode of treatment is explained partly by the advanced ages of the patients ; among the thirteen cases treated by the antiseptic method, only two had reached 50 years, whilst in the cases treated by the open method, not less than 12 were between the ages of 50 and 70. Furthermore the tables show, that of the cases of complicated fracture, in 63·7 per cent. the open method was employed, and the antiseptic method in only 39·5 per cent. Further, that in the cases of complicated fracture that were amputated of those treated antiseptically 51 per cent., and of those treated by the open method only 24 4 per cent, were accompanied by dislocation.

Excision was performed in 6·8 per cent. of all cases treated by the open method, and of those treated antiseptically in 9.3 per cent.

Of 22 women who were operated upon for cancer of the breast (18 with removal of the glands of the axilla) and treated by the open method, 3 died ; of 13 cases treated antiseptically (with the removal of the glands of the axilla in 8 cases) 5 died.

With regard to pyæmia and septicæmia, both methods are equal, neither completely protect. Cases treated by both methods are nearly free from erysipelas.

Krönlein says that the time of healing is much shorter in the cases treated antiseptically than in those treated by the open method. The ratio is as 1 to 2.

Primary union occurs much more frequently in wounds treated antiseptically, which accounts for the rapidity of cure in many cases ; amongst all the modes ofhealing, primary union most accords with the views of science, it also leaves the best looking and most useful stump. A favorable course free from fever is as common in one as the other.

The bad effects of Lister's bandages are obviated by Thiersch's modification,which although more expensive than the open method of treatment is two or three times as cheap as Lister's carbolic bandages. Concerning the limit within which the above methods of treatment are admissible and applicable, particulars are wanting.

F. J. S.

Hospital Reports.

Medical and Surgical Cases Occurring in the Practice of the Montreal General Hospital.

Two Cases of Acute Rheumatism treated by Salicylic Acid.

By Drs. Fenwick & Reddy. Reported by J. D. Cline, B.A., M.D.

1,—Sarah Ferguson, æt. 34, married, was admitted into hospital on the 28th of March. She was confined four weeks ago. She had chills and some Metritis four days after confinement, and occasional chills since. A week ago she began to have pains in one shoulder, and in her wrist and knees. On her admission the same joints were affected rather acutely, red, hot and swollen.

Temperature was 103°. Pulse 92. Tongue much coated. Perspiration free and acid, and urine acid. Heart sounds healthy. Ordered Acid Salicylic, grs. v, every three hours, in capsules. Passed a very comfortable night after a Dover's powder.

March 29th.—Morning temperature 102.1-5°. Evening 103°. To-night, joints very comfortable.

March 30th.—Morning temperature 100.2-5°. Joints still rather bad, and tongue foul. Ordered to take the Salicylic Acid every two hours. In evening tongue cleaner. Pain all out of the right leg; still some in left. Pain less in right arm. Temperature 100.2-5°. Heart still sound.

March 31st.—Pains all gone. Knee and wrist a little sore; tongue much cleaner. Morning temperature 99°; Evening 97.2-5°. Heart sounds normal.

April 1st.—Morning temperature 97.4-5°, after which it was normal. Pains in joint all gone. Case transferred to Dr. Reddy who stopped the acid. Heart still sound. Heart was not examined again till April 4th, when a loud systolic murmur was heard at apex. Dr. Reddy ordered her a mix-

ture containing Quinine. The heart was watched carefully and found to be free from murmur by the 10th. She was discharged on the 10th. Thus the patient was four days under the treatment, during which time she took in all 200 grains of Salicylic Acid, and was fifteen days in hospital

(2.) Julia Enright, æt. 14, was admitted into hospital on the 29th of March. Had been sick with headache and general malaise for nine days before admission. Had had pain in feet and ankles which gradually became worse. On her admission into hospital her ankles were very painful and swollen. Temperature 102 2-5 °. Tongue very foul. Ordered a dose of Ol. Ricini.

March 30th.—Pains extended to knees, wrist and elbows. Perspiration and urine acid. Temperature in evening 103.1-5.

March 31st.—Pains still severe, and also in hips. Ordered Acid Salicylic, grs. iij every two hours. Evening temperature, 103.2-5 °.

April 1st.—Slept through night after chloral grs. xv. Tenderness in joint much less. Still bad in one knee and hip. Heart healthy. Evening temperature 103 °. Doctor Reddy, whose service began to-day, increased the dose of Salicylic Acid to grs. v.

April 2nd.—Pain all gone from lower extremities. Right shoulder still painful. Found a loud systolic mitral murmur to-day. Tongue cleaning. No irritation been produced by the acid. Temperature this morning 99 °. Evening 98.2-5. After which it remained normal for three days. The treatment was stopped to-day.

April 5th.—Temperature went up this evening to 100 °. Had had pain over cardiac region, and some irregularity of pulse. Murmur persists. She was kept in bed at rest without any treatment except sinapisms over heart till the 8th, when she had slight pain in left shoulder, and an evening temperature of 100.2-5°. The Salicylic Acid grs. v. every two hours was begun again but stopped again next morning, when temperature was again normal and pain

had left shoulder. The heart murmur persists. The patient got her clothes on the 15th, and was discharged on the 19th April. This patient took 150 grs. of the acid, at first in three days, and afterwards for a slight relapse 60 grains. In this case it is worthy of notice that a heart murmur appeared during the treatment and persisted, and in the first case the murmur appeared, after the joint affection had disappeared. but in a few days it had subsided.

Periscopic Department.

SURGERY.

Large Veno-Cutaneous Nævus treated successfully by repeated Injections with Carbolic Acid. By S. Messenger Bradley, F.R.C.S., Surgeon to the Manchester Royal Infirmary.

A female infant, about eight months old, was brought to the out patient rooms of the Manchester Infirmary last November, with a large and prominent nævus situated above and extending into the helix of the left ear. The tumour which involved the cutaneous capillaries as well as the veins beneath, measured two inches and a half by one inch and a half, and was raised half an inch above the level of the surrounding skin. I resolved to treat the case as Lister advises, by the injection of carbolic acid; but first, to prevent any risk of embolism, I transfixed the base of the tumour with two long hair-lip pins at right angles to each other, and strangled the entire mass with a ligature tied tightly beneath the pins. I then injected five minims of pure carbolic acid, dispensing it as evenly as possible in minim doses, here and there over the whole tumour. The ligature was cut, and the needles removed in ten minutes. Little if any change was apparent, three days later, when

I repeated the process. After a further lapse of four days, no improvement being perceptible, I ligatured the nævus by means of a Fergusson's knot, and admitted the child into the hospital ; its cries, however, were so piteous and continuous, that the house surgeon was compelled to remove the ligature in about six hours, and I do not think that its introduction contributed in any material degree to the successful issue of the case. The following week I again resorted to the injection, and repeated it at intervals of four and five days ; but it was not until three weeks had elapsed, and the injections had been employed half-a dozen times, that any diminution was perceptible. At this period however, a decrease became manifest, and this decrease steadily progressed, *although no further injection was used.* From week to week until now (March 14th) the tumour is no longer at all raised above the level of the surrounding skin, and the integument has almost entirely regained its natural character and colour.

The point of chief interest here appears to be the gradual but very continuous action of the acid. Probably success would have been equally attained by fewer injections ; and. in the next case of the kind, I should allow an interval of a week or ten days between the operations. But the really important fact seems to be, that we can confidently count on success by this safe and little unpleasant method ; and when we reflect upon this fact, and at the same time call to mind the potency of electrolysis in the treatment of aneurism, where the long continued result following the operation closely resembles the action of injection in nævus, we are led to conclude that the entire chapter of the treatment of vascular tumour will have to be rewritten.

The remarkable way in which the stained skin recovered its normal colour in this case induced me to ponder upon the possibility of removing simple capillary nævi, or "mother's marks", which sometimes cover large portions of the body ; and, at last it occurred to me, that the desired end might be achieved by "tatooing" such marks with

carbolic acid. On this idea I acted, and tatooed the first case that presented itself; the result answered my utmost expectations, for, in about three weeks, the port-wine stains quite disappeared, its place being taken by a cuticle of natural colour It is true that the nævus in this case did exceed half-a-crown in diameter, and up to the present time, I have had no opportunity of testing the efficacy of this plan upon large surfaces; but this I shall certainly do the first chance that offers, and will, if permitted, communicate the result to the BRITISH MEDICAL JOURNAL.

I may add, that I used an orninary subcutaneous syringe for the tatooing, first removing the piston and withdrawing my finger from the top each time I punctured the skin, so as to permit a small drop of the acid to escape.

I am, however, having a little instrument especially made which I think will be more convenient; it consists of a hollow tube of the size of a quill-pen, with a perforated top, and terminating in a somewhat similar fashion to the teeth of certain poisonous snakes, a small groove, down which the fluid runs, opening immediately above the lancet-shaped point of the instrument.—*British Medical Journal.*

Angina Ludovici. By A. DOIG, L.R.C.P. Ed. Surgeon Army Medical Department.

In the Journal of the 25th December last, appeared a note by Dr. F. Murchison on the above-named disease. It may be interesting to have some details of a series of well marked cases which occurred amongst the soldiers quartered in the South Camp, Aldershot, during the winter of 1874-5. The disease attacked young men, was in all idiopathic, and accompanied with most intense suffering and great general depression. They all presented the same symptoms as those described by Dr. Murchison, but suppuration occurred in not a few; and one case, of which the following are brief notes, unfortunately had a fatal termination.

Private R. J., 23rd Fusiliers, aged 22, four years in service, was admitted on February 4th. He had been complaining for some time prior of swelling in the neck, which had increased to such an extent that he was forced to report himself sick. On admission, the swelling was chiefly confined to the left side; the submaxillary, sublingual, and parotid glands of this side were swollen, intensely hard, and very painful. The right submaxillary gland was also very hard and tender, but not swollen to the same extent. The lower jaw was fixed and partially open; the tongue was pushed upwards to the roof of the mouth; deglutition was almost impossible; saliva dribbled from the mouth; breathing was somewhat difficult, and the pain and discomfort intense. His general state was one of great depression; his countenance was anxious. He could get no sleep; and it was with great difficulty that he could be got to swallow a little nourishment. The skin over the swelling was of normal colour, but slightly œdematous under the angle of the jaw. Stimulants and nourishment were given frequently in small quantities, and fomentations continuously applied. The swelling continued, however, to increase, but never lost its intensely hard character; the skin became more œdematous, and breathing became more and more difficult. The agony was now intense; and, as pus was suspected to be present, exploratory incisions and punctures were made under the tongue and externally, but no matter escaped. He continued in a state of the greatest agony up to the afternoon of the 8th, when he expired rather suddenly.

Examination forty-three hours after death.—A large swelling occupied the neck, chiefly on the left side, but extending somewhat to the right and down to about midway between the lower jaw and clavicle. On removing the skin over the swelling, the tissues were found in a gangrenous state, being infiltrated with a brownish-coloured, very fœtid, semifluid matter. The tissues involved extended from the middle line in front to a little behind the angle of

the jaw, and from the floor of the mouth above to the lower border of the cricoid cartillage below. All the tissues, glands, muscles, and areoiæ were involved. The larynx was surrounded by the morbid mass, but the tissues posterior to the pharynx were not involved. The portion of the lower jaw in contact with the diseasedglands was denuded of periosteum. The mucous membrane of the fauces —that covering the epiglottis, and the whole of that of the larynx—were in an œdematous state. The tonsils were slightly ulcerated, but not involved in the destructive changes seen in the neck. The lungs were deeply conjested, and both contained numerous hæmorrhagic infarctions. At each apex, a caseous mass was found; and the lung tissue around contained numerous small deposits of tubercle. Both right and left cavities of the heart were filled with clots partly decolorised. Nothing abnormal was fonnd in other organs.—*British Medical Journal.*

Gelatinous Disease of Synovial Membrane. (New operation) Lecture delivered Jan. 18th, 1876. By C. F. MAUNDER, F. R. C. S., Surgeon to the London Hospital.

Gentlemen,—I propose to-day to darw your attention to a disease which is very common under the age of puberty —I allude to gelatinous disease of the synovial membrane, popularly called "white swelling" when met with in the knee, but to which all joints are liable. It will be convenient to observe its progress in this joint because it is comparatively superficial, and its condition can therefore be readily appreciated by the senses of sight and touch. The onset and early stage are illustrated by the following case (reported by Mr. John Job, house-surgeon.)

John L——, sixteen years of age, was admitted under Mr. Maunder's care on Nov. 30th, 1875. The patient states that until 12 months ago he was quite healthy; he then, one day slipped from a ladder, and in falling caught his right leg between the bars. In this position he was suspended for two or three minutes. The accident caused him

very trifling inconvenience at the time, and it was not until the following day that he noticed the knee to be swollen and stiff; but there was no acute pain. He did not rest the limb. but followed his occupation, that of a ploughboy, as usual. For six months, beyond a feeling of stiffness and an occasional sensation of heat, there was little to trouble the patient; his general health was good and he slept well. Then the joint began to get painful, and he was obliged to give up work. and use a stick in getting about. He then came to the hospital. On admission, the patient, of light complexion and fairly nourished, said he had got thinner since the accident. The right knee was uniformly swollen the natural elevations and depressions being concealed. It was hotter than the surrounding parts. To the touch the swelling was elastic, yeilding a deceptive sense of fluctuation, and tender on pressure. The leg was slightly flexed with inability to straighten it. Slight wasting of limb. Family history very good.

The history of this case then is often the history of many others; some slight accident, of which little notice is taken at the time, and which probably is never thoroughly recovered from. At the same time there are many instances in which it does appear to be of spontaneous or of constitutional origin. From this point of view it is called strumous, a term which I understand to apply to a subacute or chronic form of inflammatory action tending in the direction of extensive cell-growth degeneration, and suppuration (occasionally to fibrination), rather than to resolution. The disease affects two classes of patients indiscriminately—the delicate and the fair, with chiselled features, clear complexion, pearly sclerotic, and fine hair; the plain and unattractive, with ill-defiined lineaments, thick skin and coarse hair. Now this is very different to a scrofulous disease consequent on tubercule, and must not be confounded with it. Pathology tells us that the altered condition of the knee, (for instance). which had caused the absense of its natural hollows and elevations, is due to a mass of cells growing.

some on the surface of the synovial membrane and towards the joint cavity. and others in the subsynovial tissue, and to such an extent as to encroach upon and even obliterate the joint-cavity, and to conceal the natural outline of the joint and to render it shapeless. Now these cells, when examined by the microscope, have all the appearance of granulation cells, and, like them, under favourable circumstances, will become developed into fibrous tissue. Unfortunately, in the majority of instances, the patient not being strong, degeneration follows and suppuration is established. Thus, a joint, remaining more or less swollen and stiff, becomes hot tender on pressure, and painful after exercise. At the same time the ligaments are invaded and disappear, the articular cartilages degenerate, the bone becomes carious, and sinuses are established in one or more directions, as in the preparation before you, and often in accordance with gravitation, in order that the pus and other débris may be discharged. While these destructive changes are taking place the hamstring muscles displace the leg backwards and rotate it outwards, both shortening and distorting the limb, and possibly to be followed by either amputation or excision. Happily in many instances the degree of disorganization which I have mentioned does not transpire but a fibrous anchylosis, more or less complete, occurs. Two such cases have been recently under my care, and left the hospital last week convalescent,

Charlotte B——, aged six years and a half, addmitted Sept. 28th, 1875. The mother stated that the child struck the left knee three years ago, when it became swollen and stiff, and ultimately painful, and remained so for a long time. She had a doctor for it, who called the disease "white swelling." The child is fairly nourished, somewhat anæmic, has dark hair and eyes and is very intelligent. On examination, the left lower extremity is much wasted, the leg, which is somewhat displaced backwards and rotated outwards, forms with the thigh when fully extended, an angle of 115°. The patella is immovable and fixed to the lower part of the outer condyle of the femur.

The case of Alice F——, eleven years of age, is almost similar in every particular. She fell and struck her knee five years ago ; it gradually became swollen and stiff, but there was very trifling pain. She had never kept her bed.

You will recollect that these are the two instances in which, to remedy a deformity consequent on anchylosis of the patella to the femur, I performed a subcutaneous operation. With a tenotomy-knife alone in one instance, aided by a saw in the other, I separated the patella from the femur,—an all important step,—to promote extension of the leg. No discomfort whatever, no suppuration, followed the operation, and both children left the hospital last week greatly benifitted.

This preparation which I show you, where the patella is fixed to the femur by fibrou sanchylosis, while the tibia is somewhat displaced backwards, is in a condition similar to that in which the joint of each of those children was previous to operation. You will readily perceive that a patella so fixed is a direct mechanical obstacle to extension of the tibia upon the femur, and that it must be dislodged before that can be effected. The operation which I have suggested, and which you have seen me perform twice, had this object in view. In one case 45° of extension was gained by the operation, and the child gets about comfortably with a high-heeled boot.

In these two cases the granulation-cells, instead of degenerating into pus, were converted into fibrous tissue, as in a cutaneous cicatrix, leading to a firm union of the patella to the femur, but to a weak union of the latter to the tibia.

Prognosis.—This, you will at once see, is unfavorable, as the disease is rarely arrested, leaving the joint sound. This gelatinous disease of the synovial membrane may be conveniently divided into two stages. The *first* is characterized by *cell-growth.* while the *second* is illustrated on the one hand by the *adhesive*, on the other hand by the *suppurative* form of inflammation. Of these latter the adhesive is the least to be feared, while the suppurative is of grave signi-

ficance, because the necessity either for excision or amputation may arise during its progress.

Diagnosis.—The chief symptoms are (following or not some slight accident)—stiffness in the morning, causing limping, mechanical in its nature, due to the swelling ; gradually passing off on using the limb ; associated at first with painless swelling ; to be attended by tenderness and pain, not necsssarily obliging the patient to lie up, unless suppuration, "starting pains," &c., arise. All these cases illustrate the insidious and comparatively painless nature of the malady even to anchylosis, neither of the girls having kept her bed.

Treatment.—Good diet, change of air, and tonics, including preparations of iodine, are indicated by reason of the chronic nature of the complaint, implying a serious constituional error. Perfect rest to the joint must be ensured by splints, with an occasional counter-irratant in the shape of a flying blister ; and when heat and tenderness have nearly subsided, strapping and bandage, to support the cell mass and prevent venous congestion must be applied. When all danges of resuscitating inflammation appears to have ceased, friction and passive motion will much avail. Thomas's splint, such as I show you, as used by one of the above children,—with a patten attached to the boot of the sound foot, will allow the patient to take exercise in the open air, will promote extension and yet secure a certain amount of repose to the joint.

Tenotomy.— You will have remarked that, of my three cases, in that of the lad the disease was in its first stage, while in the two girls the malady has terminated in anchylosis with deformity. Now, as prevention is better than cure, I would suggest, as a rule of practice, that an attempt be made to prevent that deformity that you have witnessed in these children by a subcutaneous section of one or more hamstring tendons—at any rate the biceps, the power of which to rotate the leg outwards you can readily appreciate on your own person. I adopted this plan in the case of a child of a professional friend, and I believe with marked benefit. I propose to do the same in the instance of the lad above mentioned,—*The Lancet.*

MEDICINE.

On Defective Nerve-Power as a Cause of Bright's Disease.

By J. O. Brookhouse, M.D., M.R.C.P., London.
Physician to the General Hospital, Nottingham.

Cases of chronic albuminuria are not unfrequently brought under the cognisance of the physician, whose etiology and course are not, to my mind, satisfactorily explained by the ordinarily received ideas regarding the pathology of Bright's disease.

I do not here purpose to enter into the question of the morbid anatomy of the kidney in this malady; but I may at the outset be permitted to remind the reader that, by careful observers, three different views, though perhaps really not so conflicting as at first might appear, are held as to the seat of the pathological renal change. Dr. G. Johnson believes this change to occur primarily in the gland-cells of the convoluted tubes; Drs. Dickinson and Stewart hold that the inter-tabular fibrous matrix is first the seat of disease; whilst the more modern theory—that of Sir W. Gull and Dr. Sutton—is that the outer coat of the renal vessels undergoes a hyaline fibroid change. These observations have reference to the small red granular kidney, which is commonly regarded not as a local affection, but as the expression of a constitutional state.

The precise nature of this constitutional state is one of difficulty, but the commonly received opinion is that gout or other allied blood-poison is the etiological factor. Without venturing to express any dogmatic opinion as to that portion of kidney-tissue in which the initial tissue alterations occur, we are able to come to harmonious conclusion as to the *nature* of the morbid process. It is eminently degenerative in type, and, attacking the gland in the part of greatest functional activity, soon interferes with its physiological work.

I regard many of the cases of chronic Bright's disease that come before me as illustrations of malnutrition in con-

nection with impaired and diminished nerve-power. It is not difficult—indeed it would only be the record of every-day experience—to cite instances of the influence of insufficient or perverted nerve-force in the impairment of the integrity of tissue and interference with cell-life and development. The physician finds such instances not merely in the wasting, but in the retrograde metamorphosis of tissue seen in paralysed limbs, or in similar changes in a persistent sciatics; the surgeon, in like changes by reason of pressure in the course of nerve-trunks, or wasting of the deltoid in injury to the circumflex nerve; the practitioner of ophthamic medicine, in a conjunctivitis or corneitis, the consequence of a disturbance of the first division of the fifth cranial nerve and branches of the ciliary ganglion. Are not these fair and incontrovertible proofs of the influence of sensory and vaso-motor nerves in the phenomena of nutrition? In support of my view of the occasional, not to say unusual, occurrence of chronic albuminuria in association with disturbed nerve-force, I will draw a picture from real life.

A man of middle age, of temperate habit, and with a good family history (free from those diseases usually credited with heredity), complains of langour, weariness, and a sense of fatigue on exertion altogether disproportionate to the effort. He is dyspeptic, flatulent, and with a tendency to constipation. The appetite is bad; he has occasional nausea; the tongue is fairly clean, but pale, and marked with the teeth. Sleep is disturbed, not from pain or other very apparent cause, but a general restlessness. He has sometimes to get out of bed to pass urine, but the total quantity does not exceed three pints in twenty-four hours. His facial expression is haggard and somewhat anxious. His memory is not so good as formerly, and mental efforts are a great labour. These symptoms may have been in existence a year or more before advice is sought. The careful physical examination of this man fails to discover any evidence of organic lesion until his urine is

examined, when albumen is found, with a shedding of imperfect renal epithelium. The crystalline deposit, if any, will probably be the oxalate of lime. This condition may go on for years, and with but little variation ; and I now have a case, answering to the above, that has been under observation, without material change, so long as eleven years ; and I quote it as an instance of simple malnutrition associated with defective nerve-power.

For the most part, those who, in my experience, suffer from this form of disease, are men of middle life, of sanguine temperament, the subjects of depressing emotions, or upon whom unusual anxieties and responsibilities have heavily pressed. The resulting enfeeblement of health courts, if I may so speak, disease degenerative in character. That the more violent, though brief, disturbances of nerve-centres powerfully affect the physiological function of the kidney, I am able, by the kind courtesy of my friend Dr. Moxon, to illustrate in the record of the following case. A gentleman under Dr. Moxon's care three months, whose urine had been repeatedly examined for albumen without results, was a few days ago, suddenly seized with a fit in the street, and brought to the doctor's house. Immediately after the fit, the patient voided urine, which on examination, was found to be loaded with albumen. In twenty-four hours, all trace of this had disappeared. There can be no doubt of the relations subsisting between the nerve-storm and kidney. If, therefore, such marked results as these can occur under brief, though powerful, nerve-influence, does it seem unreasonable or improbable that slowly destructive changes should follow the more silent influence of continuous nervous depression ? Why the nerves of the kidney in any particular instance should be prominently affected, must be determined by surroundings, if, in the present state of our knowledge, it can be determined at all ; but I have not yet learned why the branches of the fifth cranial nerve are more frequently painful than any other, unless it be urged that they are more exposed, which I do

not, however, accept as sufficient reason ; but if the theory of exposure be adcepted, then, *a fortiori*, will a nerve-sympathy and kinship be established between skin and kidney. It is important to remember, in actual bedside work, that long-continued functional disorder is very liable to lay the foundation of actual organic lesion ; so that when we have involved an organ essential to life, the early recognition of such disorder becomes a question of vital importance.

I think reason exists for a belief in the milder, though not less chronic, forms of Bright's disease, as being due to imperfect nutrition of renal cells ; not merely from the fact of disease continuing to be limited to cell-life, but from the absence of those secondary changes, which most frequently, within a comparatively limited period of time, occur as the result of a blood-dyscrasia.

I hope, at some future time, to follow up this subject by the record of cases in detail ; at the present moment, however, my object will be attained should I be able to engage professional attention in a new field of clinical inquiry. —*British Medical Journal.*

Jaborandi in Colds

A French writer suggests that we are now in possession of a medicine which is destined to render signal service in colds. It is jaborandi, which by its sudorific properties, and by its exciting action on the glands of the air passages and salivary glands, combines the principal pharmaco-dynamic effects that have heretofore been sought from various medicines. An effusion of one drachm of the leaves in a small quantity of water constitutes an efficieut means against colds, if taken early.

Painful points in neuralgia.

More than a score of years ago, M. Valleix, the distinguished author of the " Guide du Medicin Practicien," called attention to the frequency of vertebral *points douloureux* in neuralgia, and the necessity of directing the treatment to them. Prof. Duplouy, of Bourdoux, now pnblishes the particulars of three cases of neuralgia that resisted all other treatment, and eventaally rapidly subsided after the application of blisteas to these points.

CANADA

Medical and Surgical Journal.

MONTREAL, MAY, 1876.

A DOMINION REGISTRATION ACT.

It was in 1836 that Lord John Russell, with a view of redressing certain grievances of dissenting religious bodies, introduced and carried through Parliament, his bill for the "Civil Registration of Births, Marriages and Deaths. At the time the importance of this measure was not seen, but forty years experience has fully proved its value not alone from a legal aspect, but in being the commencement of a general system of sanitary reform in Great Britain. The Bill, as at first proposed, did not contain any provision for the registration of the causes of death. This, however, was inserted at the earnest representation of the British Association, presided over by Sir James Clark.

Out of this Act or engrafted on it has grown a national system of vital statistics. To Dr. William Farr was assigned the duty of superintending the compilation and publication of these statistics and after forty years of weekly, quarterly, and annual retnrns, he has collected a mass of reliable information on this subject, which is of the greatest practical use. Public interest is attracted to these reports as in a great measure they have led to an equitable system of Life Assursnce. The various tables of mortality indicate the average duration of life at a given age, so that life Assurance becomes no longer a speculation, but a safe investment not alone to the assured, but also to the Companies assuming risks. The benefits to be derived by a careful record of the vital statistics of any country are with-

out measure, the facts are incontrovertible, and point to the steady increase or decrease of the population.

In the supplemental Report recently published, the Registrar General of England gives the mortality statistics of the third deeade of civil registration. From this it appears that during thc 30 years ending in 1870 the population of England and Wales had increased by nearly seven millions, and that throughout that period the annual average death rate was 22 per 1000.

In his reports Dr. Farr, has urged that any excess over an annual mortality, of 17 per 1000 represents a condition of insanitation. We have thus far alluded to a few points in illustration of the benefits to be derived by a rigid system of Civil Registration, it is to our mind the starting point, the very central nucleus of any system of sanitary reform. Very much has been written concerning the death rate of our country, and very much of that of our City, and our mortality statistics are made to shew an unusually high rate as compared to the given population, but then how are these returns obtained, they do not bear inspection—all that can be learnt is the fact that a certain number of dead bodies have been sent for burial in our cemeteries, but whether all these persons died in the City of Montreal or not, does not appear. In the year 1860 we commenced the task of tabulating the mortuary returns with a view of ascertaining, if possible with accuracy, the death rate in proportion to the given population, but after working for months we gave it up as utterly useless and unreliable, and we maintain that the returns as at present collected are worse than useless, they are cruelly untrue they lead to misrepresentation, and place the name of our city in a false light.

When Dr. Brouse moved in the Commons for the appointment of a select Committee to enquire into the expediency of asking legislation with a view to constitute a Bureau of Sanitary statistics, the Hon. the Premier of Canada in his reply stated that a very large portion of the City of Montreal was supplied with water from wells. It

was perhaps with something akin to wonder, that our City Fathers heard this statement, as we know that many of them regard our elaborate system of water supply as very near perfection. We can make every allowance for the Honorable gentleman, as he has given evidence of being no laggard in the field of research,and we feel convinced that a few hours attention to the question would have posted him on the subject, and that he would have overwhelmed the house with statistics be they ever so dry.

The time is fast approaching when these subjects will be forced on the consideration of our Federal Government, and what was recently an independant motion of an outside member, will we doubt not become a Government measure. Canada is sufficiently important as a country to adopt a definite policy on this subject. It is not a question for our Local Legislatures to deal with, but must be taken up and gone into by the Federal Government: it is a question in which the people of Canada as a whole, are interested and not the inhabitants of any one Province. To attain any results a uniform system of observation must be introduced, and we cannot do better than take as a model the English Act, which in many respects has been taken as a model by the larger number of the nations iu the civilised world.

Our readers are aware that the Board of Governors of the College of Physicians and Surgeons of Lower Canada hold their semi-annual meeting in this city on Wednesday the 10th May, instant. At that meeting will come up for discussion the report of the Committee appointed at the last Triennial meeting, to draft certain amendments to our Act. A report is before the College which has already appeared in these columns, the following amendments to that report will be submitted, and we insert them to give our readers, and especially those of them on the Board of Governors, an opportunity of their perusal.

Amendments to the Act of Incorporation of the College of Physicians and Surgeons, L.C,, to be proposed at the May meeting.

1st.—That the composition and mode of election of the Provincial Medical Board at present authorized by the Act of Incorporation of the Col-

lege of Physicians and Surgeons of the Province of Quebec, be not altered.

2nd. That section VII. of the Act of Incorporation of the College of Physicians and Surgeons, cap. xxvi, 10th and 11th Vict. be expunged.

3rd. That Section V be thus amended:

The said Board of Governors shall be, and are hereby constituted "The Provincial Medical Board," in which capacity they shall meet *to receive the reports of the "examiners" hereinafter mentioned, and to perform the several duties devolving upon them under this Act as the Board of Governors of the College*, not less than *once* in each year, at such time and place as to them shall be deemed most fit, and on which occasions, seven shall be a quorum, for the transaction of business.

4th. That at the first regular meeting, of the said Board after the passing of this act there "shall be appointed by the Provincial Medical Board," for three years, subject to the approval of the Board, nine examiners, not Governors of the College, six of whom shall be of French and three of English origin, by whom all Candidates, for a license to practice medicine, surgery, and midwifery in this Province shall be examined, in accordance with the by-laws, rules and regulations of the Provincial Medical Board. The examination to be written and oral, and as far as possible practical.

Of the above examiners, one shall be chosen from each of the four medical schools, now existing in the Province, and the remaining five shall be chosen from amongst the registered Medical practitioners not connected with any of the Medical schools.

5th. That at the first regular meeting of said Board after the passing of this act there shall be appointed by the Provincial Medical Board for three years (subject to the approval of the Board) three persons actually engaged in the work of general education, to examine all persons about to begin the study of medicine, surgery and midwifery, on the subjects of general education hereinafter mentioned as belonging to the preliminary qualification of medical students, viz: One examiner of French nationt ality, resident in the city of Quebec, and one of French and one of English nationality resident in the city of Montreal. The subjects of the preliminary qualification to be English, French, Latin, geography, arithmetic-algebra, geometry and natural philosophy, and the candidate to present a certificate of good moral character.

6th. That every person wishing to obtain a license to practice medicine, surgery and midwifery in this Province, and to be registered under this act, and who shall not have obtained a license to practice medicine, surgery and midwifery in any of the provinces of the Dominion of Canada before the expiration of six months after the passing of this act, shall, *before being entitled to such license* and to *registration* in this province, *possess a degree or diploma* from a Canadian university or college, or incorporated medical school, approved by the Provincial Board, *and pass an examination* as to his knowledge and skill for the efficient practice of

medicine, surgery and midwifery, *before the examiners appointed by this Board;* and upon passing the examination required, and proving to the satisfaction of the examiners that he has complied with the rules and regulations made by the Provincial Board, and on payment of such fees as the Board may by general by-law establish, such person shall be entitled to a license to practice medicine, surgery and midwifery in this province, and to be registered, and, in virtue of such registration, to practice medicine, surgery and midwifery in the Province of Quebec. Provided, always, that when, and as soon as it shall appear that there has been established a central examining board, similar to that constituted by this act, or an institution duly recognized by the Legislature of any of the Provinces forming the Dominion of Canada, other than Quebec, as the sole examining body for the purpose of granting certificates of qualification, and wherein the corriculum shall be equal to that established in Quebec, and the holder of such certificate shall upon due proof be entitled to registration by the Provincial Medical Board of Quebec, if the same privilege be accorded by such examining board or institutton to those holding certificates in Quebec; Provided, also, that it shall be *optional* for the Provincial Medical Board to admit to registration all such persons as are duly registered in the medical register of Great Britain, or are otherwise authorized to practice medicine, surgery and midwifery in the United Kingdom of Great Britain and Ireland, upon such terms as the Provincial Medical Board may deem expedient.

That the "Provincial Medical Board :—

(1). Shall from time to time, as occasion may require, make rules and regulations for the guidance of the "Examiners," and may prescribe the subjects and mode of the examinations, the time and place of holding the same, and generally may make all such rules and regulations in respect of such examinations not contrary to the provisions of this act, as they make them expedient and necessary,

(2). It shall regulate the study of Medicine, Surgery and Midwifery by making rules with regard to the preliminary qualifications, duration of study, and curriculum of studies to be followed by the students.

Provided always that such rules shall not be contrary to the provisions of this Act,—and that any change in the curriculum of studies fixed by the Board shall not come into effect until one year after such change is made.

8th. That the Provincial Medical Board shall have the power to fix by law the salary or fees to be paid to the "Officers," and to the "Examiners" adpointed by the said Roard; as well, also, the fées to be paid by all candidates entering on the study of medicine, as also by all candidates for the license to practice medicine, surgery, and midwifery, as well as the fee to be paid for registration, and the said Board may dispose of all fees received in whatever manner they may think most conducive to the Interests of the College.

McGILL UNIVERSITY MEDICAL FACULTY.

Summer Session.

It is with great satisfaction that we are enabled to announce an extended summer course in connection with McGill University Medical Faculty. For several years past, regular clinical instruction throughout the summer months has been afforded students in the wards of the Montreal General Hospital. To make these more useful and attractive, and with a view of rendering clinical instruction more than ever a characteristic feature of the teachings of this school, the Medical Faculty gave a special course of clinical instruction during the summer months, open to all matriculated students free of charge.

This will be found in the announcement of the Medical Faculty for the year 1870. The summer session of 1876 has been rendered more attractive by several additional workers. Besides the usual clinical instruction at the bedside, Dr. Ross wlll deliver a course of lectures on Physical Diagnosis. Dr. Roddick takes up the subject of Minor Surgery, and gives instruction on the uses and employment of surgical apparatus. Dr. Gardner discusses electro-therapeutics and the practical uses of electricity in disease. Dr. Frank Buller, who comes fresh from the Royal London Ophthalmic Hospital, Moorfields, where he has enjoyed unusual opportunities, as Resident Surgeon to that institution during the past three years, will deliver a course of fifteen lectures on Diseases of the Eye, giving at the same time instructions in the use of the ophthalmoscope, with practical demonstrations of intra-ocular lesions. Dr. Girdwood delivers his course of practical instruction in Chemistry, this forming a part of the required curriculum the student has the option of attending this course during the summer months. And last, though not least. we have Dr. Osler, who is an enthusiast in his department, who will give a course of twenty-five lessons on Practical Histology, and also a course of Practical Pathological Demonstrations.

in the post-mortem room. In giving facility to students to follow up their studies during the summer months, these gentlemen are giving much valuable time, and we trust their exertions will be appreciated by the pupils. We understand that a large class is expected. We give below a schedule of the work.

SUMMER SESSION, 1876.

———o———

Dr. Drake.— Dr. McCallum.— Dr. Godfrey.—	Clinical instruction daily at bedside in Montreal General Hospital. A limited number of Dresserships and Clinical Clerkships may be obtained on applying to the out-door and attending Physicians.
Dr. Ross.—	Physical Diagnosis.
Dr. Roddick.—	Minor Surgery. Application of Bandages and Splints. Surgical Anatomy on the Cadaver.
Dr. Gardner.—	Electro-Therapeutics; the practical application of Electricity in disease.
Dr. Buller.—	A course of fifteen Lectures on diseases of the Eye, including instructions in the use of the Ophthalmoscope and practical demonstrations of Intra-ocular Lesions.
Dr. Girdwood.—	Practical Chemistry, including Blowpipe manipulations, qualitative analysis, toxicological investigations, &c., &c. Fee, $12.
Dr. Osler.—	Practical Histology—Normal and Pathological. A course of twenty-five lessons. Microscopes, re-agents and material provided. Fee, $15. (To be devoted, after paying necessary expenses, to Physiological Laboratory Fund.)
Dr. Osler.—	Practical Pathology—a course of twenty demonstrations in the Post-mortem Room.

All the Lectures and Demonstrations will be free with the exception of the Practical Histology and Practical Chemistry courses. The latter forms part of the curriculum and may be taken by students either in the Winter or Summer Sessions.

The Session will begin on May 1st and continue three months.

For further information apply to

THE REGISTRAR.

SIR GEORGE DUNCAN GIBB, BART.

We annouuced the death of this gentleman in the March number of our periodical, and we think that as an old fellow-student and graduate of McGill University,—one whose intimacy, we might almost say affection, remained with us to his dying day—something more than a passing obituary notice is required from us.

George Duncan Gibb entered as a student of medicine at McGill University in the autumn of 1842. After pursuing his studies uninterruptedly for four sessions, he graduated in May, 1846. The year before he graduated he received the appointment of Resident Apothecary to the Montreal General Hospital, which position he retained up to the spring of 1847, when he left for Great Britain, selecting Dublin as the school at which he proposed to follow up his professional studies. Early in the year 1848 he passed the examination for the License of the Royal College of Surgeons, Ireland, and also that for the License in Midwifery. Shortly after passing the College of Surgeons he repaired to Paris, and was in that city a week or so after the eventful days of June of that year. Whilst in Paris he prepared a paper on gun-shot injuries, illustrating it with cases of gun-shot wounds which he observed in the various Parisian hospitals. This paper he read before the Parisian Medical Society, which procured for him the honour of election as member of that Society. This paper, which is very interesting, may be found in the fourth volume of the *British-American Journal*, page 150. Europe being much disturbed, politically, at that time, he did not prolong his visit to the Continent, but returned to England; and on the 12th February, 1849, he took ship at Liverpool and sailed for New York. He arrived in Montreal some time in the month of March following, and forthwith commenced the practice of his profession in this city. Always industrious and with a keen desire to record all that appeared to him of interest, on the passage to this country he made accu-

rate observations on the diseases and accidents which occurred amongst the crew and passengers, being an aggregate of 369 souls, during a lengthy passage of 36 days. This formed the subject of an interesting paper, which was published in the fifth volume of the *British-American Journal.* In this paper will be found suggestions as to the daily amount of food required for steerage passengers, and also the accommodation necessary—as at that time, and even in our day, the holds of vessels were disgracefully over-crowded; the subject of the necessity of ventilation of passenger vessels as a sanitary measure is dwelt upon. Altogether, this is a thoughtful and well-arranged paper. In the year 1851, Dr. Gibb, with several other medical gentlemen of this city, established the St. Lawrence School of Medicine, and during the ensuing winter session he delivered a course of lectures on Institutes of Medicine in connection with that school. This school survived one session, and its cessation cannot be attributed to any other cause than a want of scope. Already there existed two medical schools in Montreal, both struggling for bare existence, and it was found that to continue the work of the St. Lawrence School could alone be done by considerable personal outlay. The following year, Dr. Gibb determined to leave this country and settle in London. In 1855 he was appointed Reporter to the London *Lancet*, which position he held for upwards of ten years.

But while devoting much of his time to hospital reports he continued to work earnestly, and became a regular contributor to Canadian medical and other periodicals. There is not a single volume of our own medical journal which does not contain something from his pen. Literary labour was to him a pleasing recreation, and during his sojourn amongst us we never remember to have seen him idle. Go to his office when you would, he was to be found ever at his desk engaged in some literary pursuit. His style was clear, indulging occasionally a little in the imaginative, but what he did write gave evidence of careful research and

accurate observation. Of his career of late years we know nothing personally, but the record is to be found in the *Medical Directory*. He was M.A., M.D., C.M., McGill University, 1846; L.R.C.S.J., and Licentiate in Midwifery, 1848; M.R.C.P., London, 1859; Fellow of the Medical Society, also Medico-Chirurgical and Anthropological Societies of London; Member Pathological Society, of the British Medical Association, and many other societies on this continent and in Europe; Fellow of the Geological Society, &c., &c.; L.L.D., conferred by the University of Laval, Quebec, in 1864. To be a member or fellow of a literary society was not sufficient for Dr. Gibb, and on reference many of the transactions of the above-named societies will be found to contain contributions from his pen. But besides writing occasional papers, all of worth and interest, he found time to collect his views into book form, and published a treatise on Whooping Cough; also a *brochure* on morbid states of the urine, and a work on Diseases of the Throat and Windpipe as reflcted by the Laryngoscopi. He translated "Czermak's Work on the Laryngoscopi" for the New Sydenham Society, and subsequently published "Observations on Diseases of the Hyoid Bone," and also "The Laryngoscopi in Throat Diseases." This, we believe, gave him a widespread name both at home and abroad, and the wheel of fortune seemed to have turned in his direction, but unfortunately he left the beaten track he had so far trod well, and devoted the remaining years of his life in seeking after a bauble which, when found, was worthless. Had the empty title to which he laid claim carried with it a few broad acres, we could then understand his striving for its possession. But it was a false step, one which we verily believe he himself regretted. It, in a great measure, cut him off from all that was congenial to him as a scientific enthusiast, and rendered him misanthropic and taciturn. It was a weakness of charaeter deplored by his truest friends, and ridiculed by those not his equals in capacity. In connection with this assump-

tion of a title, he published a work in two volumes on "The Life and Times of Robert Gib, Lord of Carribber, Familiar Servitor and Master of the Stables to King James V. of Scotland," with notes of his descendants who held offices of trust near the person of the Sovereign in the reigns of Queen Mary, James VI. of Scotland and I. of England, and Charles I., compiled from the Pubiic Records ; London, Longmans, Green & Co., 1874. This is somewhat dry reading, as it refers chiefly to family matters, of interest no doubt to many ; but, besides dry matters of personal history, there are many circumstances and facts of an historical character interspersed which add somewhat to the general interest of the book. This portion of his career we must close, with sincere regret that it should have ever become our duty to record. One of the last papers he contributed to medical science was entitled "Division of the Isthmus to relieve Dyspnœa in Certain Cases of Bronchocile." This article will be found in the *Lancet* of January 23rd, 1875, page 120. His suggestion has been favorably received by the profession. Some time in April, 1875, he was attacked with what appeared to be pleuro-pneumonia of the left lung. From this he never entirely recovered. Serious changes occurred: the right lung and liver became engaged in the disease, and he finally sank, and died on the 16th February ultimo, at the age of 55 years.

A MODEST REQUEST.

We observe that at a recent meeting of the Health Committee, presided over by His Worship the Mayor, a most modest demand was made by Dr. George Baynes, who, according to the newspaper report, requested to be appointed with authority to publish an eight-page monthly journal strictly devoted to health matters ; and further, that a remuneration of $300 be given for that purpose. We think that if the Corporation of the city of Montreal are going into the printing business, they had better adopt the usual course and advertise for tenders.

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Acute Fibrinous Bronchitis, with Expectoration of Tube Casts. By E. D. WORTHINGTON, M.D., of Sherbrooke, P.Q.

On the 11th of January last I received a very urgent telegram, asking me to meet Dr. McGowan, at Bolton. The patient, Mrs. R—, wife of the Superintendent of the Huntington Mine, is an English woman 41 years of age, well-formed, and above the average height. She is the mother of thirteen children, the youngest being only three months old. She has had all the diseases of childhood, including Hooping cough, and on two occasions suffered from some affection of the lungs which she describes as being of an inflammatory character, and which she thinks her doctor in Devonshire called Pneumonia. With the exception of the above ailments she has enjoyed uninterrupted good health, and been singularly free from cough, or other indication of lung disease. Some of her relatives however, on the mother's side, died of phthisis.

Dr. McGowan's history of the case is as follows:—the extracts quoted being from his notes. When first seen by him on January 7th, "the pulse was 98, respiration 25 and laboured. On examination by stethoscope found the lower lobes of both lungs in a state of engorgement. Ordered sinapisms over the whole chest, and gave liq. ammon. acet. with antim tart. every four hours, alternately with minute doses of morphia and ipecac." "The symptoms remained about the same until the 10th, when

there was some improvement, pulse 88, resp. 21, dulness has disappeared. Gave the following mixture :

Syr. Scillæ comp. ℥iv
Ammon. Muriat ℥ii
Potassii. Cyanid griii
Sol. Morphiæ Muriat ℥iii
Extr. Glycyrrhizæ 3vi
Aquæ ad ℥iv

A tea spoonful every four hours.

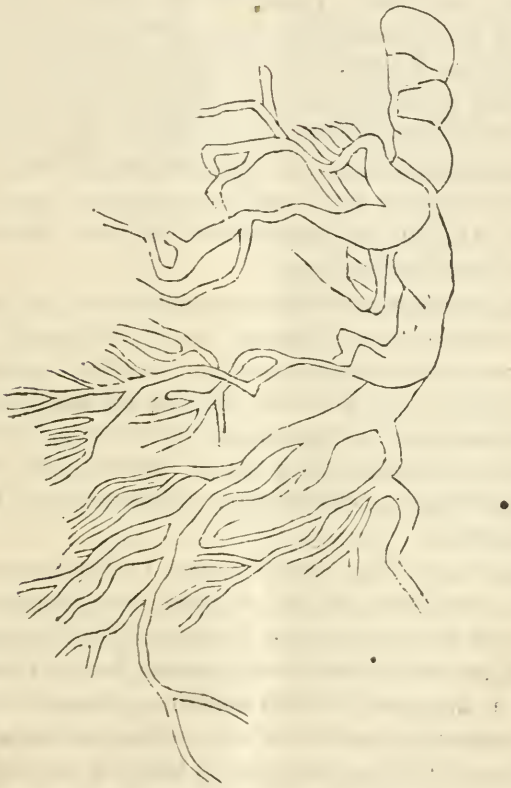
On the evening of the 10th, I noticed the tube casts for the first time."

It appears that on the evening of the 10th, Mrs. R. was suddenly seized with most alarming symptoms of suffocation, constriction and pain within the chest, particularly on the left side, attended with great distress, countenance and skin livid, dyspnœa, and violent paroxysms of coughing, which ended in her coughing up a quantity of what ultimately proved to be fibrinous tube casts of the bronchi, equal in bulk to about a large table spoonful, when washed from the accompanying catarrhal expectoration. The sputa were at first, and only at first, very slightly tinged with blood, and a few blood points were observed on some of the tube casts. In a few hours another paroxysm of coughing ended in more expectoration of tube casts, the disappearance of cyanosis, and most marked relief to the patient.

When I saw Mrs. R. near midnight of the 11th I had the consolation to find—after my lonely drive of 30 miles—the patient wonderfully calm, breathing quietly, suffering no pain, and anxious only as to the significance of the beautifully moulded bronchial trees, which had appeared "in such questionable shape" and which were carefully preserved in a bottle of water for my inspection. To her, and her husband, they were ominously suggestive of bronchial tubes ! and though I had never seen tube casts before, having only read descriptions of them, I was happy to be able to corroborate, much to the patient's peace of mind, Dr.

McGowan's assurances that they were only casts of the bronchial tubes and not the bronchial tubes themselves!

Some of the larger specimens had a diameter at the base of fully three-eighths of an inch, they were distinctly cylindrical, of a clear white, or perhaps pearl color, with here and there very minute and delicately coloured pink points.



One of the specimens I sent to Dr. Howard was, when fresh, a particularly fine one. In an ordinary Quinine bottle of water it floated with its top turned downwards, reaching from the cork to the bottom of the bottle, branching out on each side, and representing a perfect white gem of a tree. That one had, at first, twenty-eight terminal branches, and

was at least four and a half inches in length. The wood-cut represents the actual size of one of the largest casts. I have to thank my friend Dr. A. A. Browne for the very careful sketch from which it was taken.

Perhaps I should say something upon the physical signs, on examination of the chest; but really on this point there is nothing to relate. The patient was better when I saw her, and beyond a carefully prolonged act of inspiration and expiration, as if fearful of inducing a paroxysm of coughing, and slight crepitation, circumscribed, in the posterior and lower part of the left lung, I could detect nothing abnormal.

The chest was clear and resonant throughout, except at this circumscribed spot; and the respiratory murmur was perfect. Only a short time before I arrived a free expectoration of casts had occurred.

I may mention here that all the children in the house had been suffering from Hooping cough for several weeks. There was not, at any time, in the case what could be called Hæmoptysis; only a few of the tubes had blood points, and a few times, early in the case, the mucus coughed up with the casts, was tinged with blood. Beyond this there was no hæmorrhage; a circumstance rather unusual, I believe, in such cases.

I used above the word 'quantity,' to mark the amount expectorated, but will be a little more definite. Dr. McGowan had saved five or six magnificent specimens for himself, as well as some broken ones; beside these I was shewn a large pickle bottle containing upwards of twenty casts, measuring each from two to five inches in length.

All these had been coughed up before I saw the patient.

On the 20th April I saw Mrs. R., as she passed through Sherbrooke, on her way to England, but only for a few minutes. She had no cough or other evidence of lung affection. She told me that she had coughed up casts, in greater or lesser quantity, every day, up to near the end of March. Her estimate and that of her husband, as to the

quantity, was that when carefully washed from all mucus, *the casts themselves* would more than fill an eight ounce bottle, an estimate in my opinion much within the mark. They were carrying with them some remarkably fine specimens to England.

At no time during Mrs. R's illness, did her cough,or other symptoms, present the slightest resemblance to Hooping cough.

Pseudo-membranous, Croupous, or Fibrinous Bronchitis, Bronchial Polypi, Bronchial Croup, Plastic Bronchitis, &c., is, according to Riegel, "as a genuine, primary form of disease, *a very rare affection, and one which occurs more frequently in the chronic than in the acute form.* Its occurrence is so infrequent that even in large hospitals years and decades may pass before a single case of the kind comes under observation. Of acute, fibrinous bronchitis, with fibrinous expectoration, Lebert could find but seventeen observations, after a careful analysis of all the cases known at the time of writing."

Very many of our standard works on medicine make no reference to it, as a 'genuine primary form of disease,' or indeed allude to it either in its acute or chronic form, and I have diligently looked over Braithwaite from the first to the last number, without finding one single case reported. Tanner devotes about half a page to the subject, under the head of 'Plastic Bronchitis;' but it is evident that his remarks all point to a chronic form of the disease.

Watson in his Lectures, says: "Inflammation of these mucous membranes is, however, sometimes attended with the exudation of something which is very like coagulable lymph. The tracheal, bronchial and pulmonary membrane, the œsophageal, the intestinal, and that which lines the uterus, are all more or less subject to the formation of adventitious membranes under inflammation. Casts of the smaller branches of the air tubes have, in rare instances, been coughed up in large quantity; constituting what have been very inaptly called *bronchial polypi.* The

membranous exudation of croup is well known, a tubular substance is formed in the trachea, and sometimes fortunately expelled; but too often it suffocates the patient." In another place "I mentioned in a former lecture that the false membrane of croup sometimes descends a long way into the bronchi; even to their extremities. But I am speaking now of a different and less acute form of the disease, in which the *trachea being unaffected*, concrete masses, evidently moulded in parts of the hollow bronchial tree, are spat up; somewhat like bunches of worms, or the branching roots of a small plant. This I presume to be uncommon, for I have met with it *twice only in my life*." Doctors Warren and Paris, Mr. Worth and Sir R. Carswell, are then referred to as having met with cases, but they are apparently all of the chronic form. Watson's cases of the two brothers, the Barrister and the Professor, are very interesting; each attack in both cases being preceded by hæmoptysis. It is clear that in both cases there was a persistent congested state of the mucous surface of the bronchi, and that both were of a purely chronic character. Perhaps it would not be venturing too far to suggest that as a rule chronic cases are attended by free hæmoptysis, and that only a trace of blood attends the acute form of the disease.

By far the most complete treatise on fibrinous or croupous Bronchitis is that by Dr. Riegel of Cologne, in the 4th vol. of Ziemssen; the prefatory remarks to which, state that hardly any individual observer is in a position to acquire great personal experience, on account of its general rarity, and that of 58 cases worked up by Biermer, two only occurred under his own observation.

Biermer includes under the above name, "only those cases in which the croupous process is limited to the bronchi or has taken its starting point in these tubes." "Those observations in which the croup extended from the larynx to the bronchi are not included, nor those in which casts are formed in the bronchi during the progress of a croupous pneumonia" But he takes into consideration "the second-

ary bronchial croup," which is sometimes observed as a result of chronic affection of the lungs, tuberculosis for example.

Lebert also excludes those cases in which the fibrinous bronchitis is a continuation of fibrinous laryngitis ; but includes cases in which casts have formed in the bronchi in the course of croupous pneumonia.

The article, however, adopts Biermer's division, namely, that which *commences primarily in the bronchi.* The disease is named fibrinous bronchitis by Lebert, "because the fibrinous nature of the inflammatory product constitutes its chief characteristic ; the fibrine, in this affection, exuding as such from the bronchial capillaries, or the pulmonary capillary vessels, in company with the white corpuscles, or perhaps escaping as fibrinogen which promptly coagulates on exposure to air."

Among the predisposing causes to fibrinous bronchitis, Riegel, while confessing that we have not sufficient data for statistical purposes, inclines to the belief that it may be induced by the daily variations of the temperature, at particular seasons, which give rise to bronchitis and pneumonia. When the case of Mrs. R. occurred, cases of pneumonia and Hooping cough, were very common in Bolton, and the neighboring townships ; but it would be very difficult to connect the Hooping cough,—even as an exciting cause—with the croupous bronchitis. Riegel,in describing the *acute* form says : "The disease may begin in the form and manner of an ordinary acute catarrh, with slight fever, more or less dry cough, feeling of oppression on the chest, loss of appetite, increased thirst, and similar symptoms. *After these catarrhal symptoms have existed for some days, severe symptoms occur more or less suddenly,* including intense dyspnœa, increasing to manifestations of suffocation, active febrile movements, dry harsh cough, usually without any or with scanty expectoration, severe oppression and feeling of anxiety, *sometimes even slight hœmoptysis.*" Then, with a painful sensation of oppression in the chest, and dread of suffocation, comes the characteristic fibrinous expectora-

tion. The casts are either coughed up in a round ball, surrounded with a little mucus, or they are enveloped in a considerable quantity of catarrhal, purulent, or sanious sputa.

It is quite evident that even the most carefully conducted physical exploration will never succeed in detecting the existence of bronchial croup, as such, even in the severest cases. It is only when the fibrine cast appears that the nature of the disease is positively known. *Percussion* of the chest gives no prophetic sound, but the *respiratory murmur* is absent over all bronchi filled up by casts. There is no respiration there at all. "Hence it may be considered as a somewhat characteristic trait of this affection that while on the one hand the percussion tone is full and clear, the respiratory murmur, on the other, is absent."

When the expulsion of the fibrinous mass is complete the agony is over; the feeling of impending suffocation is gone; the dyspnœa, paroxysmal croup, and other distressing symptoms disappear, and the sufferer all at once experiences a degree of comparative comfort, but alas, only until fresh casts have again been formed. Then the routine of suffering and comfort alternates until recovery or death ends the case.

"The prognosis is in general doubtful in acute cases," about half of them dying. "On the other hand, the prognosis of chronic bronchial croup is much more favourable," according to Watson, "the complaint is not a dangerous one; and when death occurs during its progress, the fatal result is due to some disease of which the membranous exudation is merely a complication." A favorable prognosis may of course be given with more confidence if the patient either in the acute or chronic stage has already gone through the ordeal of expectoration of casts; age and constitutional vigor being considered.

According to Riegel, the indications as to treatment are, *first*, to remove the fibrinous masses present in the bronchi; *second*, to prevent their reproduction. The *first* is to be accomplished, if possible, by the time honored administra-

tion of emetics. The choice of emetics being "the recently introduced and amply tested Muriate of Apomorphia" which by subcutaneous injection "acts very promptly, is always certain, and is free from attendant unpleasant effects." Inhalations of lime water, lactic acid, carbonates of the alkalis, and hot water vapor are specially recommended. The *second*, viz., to prevent the recurrence of the attacks.

When the croupous bronchitis has developed in connection with an acute or chronic bronchial catarrh, *attack the bronchial catarrh*, and in addition avoid all sources of injury which experience has shown to give rise to bronchial catarrh. Finally Riegel sums up by stating that "there are no remedies, as far as is at present known, which are competent to prevent the recurrence of the attacks with any degree of certainty.

It is with a view of ascertaining the minute structure of the casts, that Dr. Osler has made a number of transverse sections, and I submit his report: "Each cast consists of a variable number of laminæ arranged concentrically, those in the centre being much folded and involuted. Under a magnifying power of 500 diameters the laminæ are seen to be translucent, structureless membranes, while the spaces between them are filled up with fine fibrils of fibrin, and innumerable leucocytes."

Sherbrooke. May 20th, 1876.

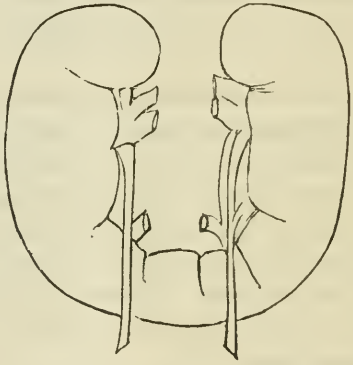
Horse-shoe Kidney. By J. D. CLINE. B.A. M.D.,

(Shown at the Medico Chirurgical Society.)

William Harrison, aged 35, was admitted into the General Hospital in January, 1876. There were evidences of commencing softening in the apices of both lungs. He was an extremely nervous man, when spoken to or examined he would turn pale, and tremble, and the action of his heart would become very tumultuous, the pulse running up to 150 or 160 beats in a minute. The softening of the lungs progressed very rapidly. There was elevation

of temperature constantly. He died on the 10th of April.

At the Autopsy we found a large number of small cavities in both lungs, and the intervals between the cavities stuffed with tubercle. The left ventricle of his heart was slightly hypertrophied. We found the following malformation of the kidneys. The two organs were fused into one mass, horse-shoe in shape, with the convexity downwards, the bond of union lying over the spine. The ureters passed down *in front of the kidney*, the left one opening into the left mass by three canals, the right one into the other side by one. There were but two renal veins, one for each side, opening into the upper part of



each hilum; and two arteries for each side, those opening into the upper part of the hilum arising from the aorta in the usual situation, the others arising from the aorta below the spermatic arteries, and entering the hilum at its lower part. On section we found a distinct pelvis for each side. The union consisted of true cortical structure, of the usual depth, along the concavity, while the rest which was the greater part of it did not appear to be pyramidal structure. The hilum of the left side was very much to the front. On looking up the literature of this malformation of the kidney I can find very little. In the transactions of the Pathological Society of London for 1862 Dr. Gibb describes a case which was affected with Bright's disease,

and mentions as being found in the London Museum at that time 19 specimens.

Wilks and Moxon in their Pathological Anatomy speak of it as very rare. The specimens differ slightly in the number and disposition of the arteries, veins and ureters. The ureters generally pass down behind the kidney. The convexity of the horse shoe is always downwards. One case is mentioned where the union was by fibrous tissue rather than glandular structure. I think in this specimen the greater part of the union is glandular. Dr. Browne has kindly given a drawing which shows the peculiarities of the malformation.

Convulsions, their Nature and Treatment. By WILLIAM FULLER, M.D., C.M., Professor of Anatomy, University of Bishop's College.

(Read before the Medico-Chirurgical Society, Montreal.)

GENTLEMEN,—There are few circumstances more trying to the physician than the management of a case of convulsions, especially to one who has just commenced his career of practice, armed as he may be by knowledge acquired from lectures and books, but yet doubtful through want of experience of the practical application of the means which he has been taught to use. Regarding the suddenness of the call, the great anxiety of the parents, the frightful aspect of the patient, and the apparent necessity of immediate action all conspire to disturb that equanimity of mind necessary for correct observation and sound judgment.

In studying the physiology of convulsions I have come to the conclusion that they result from an anæmic state of the nervous centres produced by spasms of the vessels through irritation of the sympathetic nerve from local disturbance in some part of the organism, or from an insufficiency of blood in the vessels, as in case of excessive hæmorrhage, or perhaps from an altered state of that fluid from the poison of the eruptive fevers, or strychnine, &c.

A spasm is either local or general in the organs of the mind, producing irregular trains of thought, hysteric emotion, or depraved irresistible appetites. In the spinal cord, producing general or local pain, or spasms in the body. In the vascular system of the body producing the general chill which precedes a fever, or local anæmia as in cold hands and feet, and what nervous patients describe as dead fingers. These and many other conditions have their origin in spasms of the arterial system shutting off the supply of blood to nervous centres or to parts of the body—they are similar in nature and call for similar remedies. They sometimes replace each other, and are beyond the control of the patient's will. The irregular circulation in the organs of the mind produced from excentric causes, is a subject well worthy the study of the theologian, the moralist and members of the legal profession whose mental philosophy studied from consciousness, seldom recognizes the groundwork of that science in physiology, hence it is with the one the wrong-doer is wicked, and the other condemns him as a criminal. How few recognize that great essential, " a sound mind in a sound body."

This is the explanation of the different views taken of cases in our criminal courts by the bench and the doctors. Let us continue at the risk of being the subjects of derision to testify when our conscience dictates, in the interests of mercy, and let the same understanding make us charitable toward all men. We are, however, seldom called to treat these cases until some unfortunate is ripe for the lunatic asylum, or on trial for his life.

We will now consider the nature and treatment of spasms affecting the bodily organs. The phenomena of a chill, is that a local or general irritation of the sympathetic causes spasms of the arterial coats and unstriped muscular fibres generally, shutting off the supply of blood to the skin producing a sensation of coldness and cutis anserina. The heart beats violently to overcome the obstruction. Paralysis soon follows the expenditure of nervous force, and the capil-

laries become distended with an overflow of blood which is the phenomenon of simple fever. Nature's object in this is to relieve a local congestion by withdrawing the blood to other parts of the body and thus equalize the circulation. All parts of the body now start from equal conditions to tone up their vessels, and if this process obtains equally throughout the body there is a continuous recovery; but if on the other hand the part primarily affected fails to keep pace with the rest of the body, after a certain time it is necessary to repeat the process, which probably is the cause of the periodicity of certain diseases, as intermittent fever, periodical pains, periodical drunkenness, or insanity of any kind. In low fevers the chills are slight, owing to the depressing or paralyzing influence of the poison, hence the dusky appearance of the skin, its sluggish circulation, and the bluish and long continued congestion remaining after the application of mustard, in typhoid fever, &c. The same conditions in the nervous centres, produce the sluggish comprehension and the nervous symptoms observed in fevers.

Convulsions frequently follow or take the place of chills, especially in children, a fact which proves their close relationship. Now what are the facts from which we can form a just conception of the nature of convulsions, and can we draw a comparison between them and chills? I think we can prove them to be identical. Let us observe closely the phenomena of a convulsion. 1st. There is variableness of the temper, fretfulness, excitement, frequently the child sings just before, and the joyous mother is suddenly transported into grief by the unexpected change. The face is observed to be alternately pale and flushed, irregular patches are seen, travelling spots of redness. The pupils alternately contract and dilate. There are frequent starts out of a restless sleep from dreams, rolling of the eyeball, twitches in different parts of the body precede the general convulsion which is unequally distributed, and generally follows a successive course over the body, repeated in the same order in each subsequent convulsion, sometimes affect-

ing only one side, which side is generally semi-paralyzed after the attack. Each convulsion is followed by a state of congestion of the face, and more or less profound unconsciousness. Now what is the signification of these phenomena—doubtless they are the result of irregular circulation produced as in chills, by irritation of the sympathetic and irregular contractions of the vessels until the maximum contraction is reached in the convulsion, which is followed by dilation of all the vessels, and congestion of the nerve centers, which is the cause of the unconsciousness, and of the cessation of the spasmodic action. Excessive hemorrhage produces convulsions, owing to a deficiency of blood supply, fainting fits are frequently accompanied by or pass into convulsive movements. The object here to be attained by nature is, by the temporary spasm of vessels leading to the nervous system, to paralyze those vessels in order that while the body which may remain prostrate without a fatal result, those parts which are necessary to life, may be more abundantly supplied until the vital fluid is replenished. Farther with a view of testing these ideas I have observed in the slaughter house that spasms occurred in the animals only when they were nearly bled out, and I further caused two calves which I selected as nearly equal as possible, one to be suspended by the legs and the other laid on the floor with its head elevated, they were both bled as nearly alike as possible, and as I anticipated the one on the floor was convulsed much sooner and much more than the one suspended, showing that while anæmia favors, congestion of the brain opposes, general convulsive movements. Again, compression of the veins of the neck is said to control a convulsion ; however, I have not met with success through inefficient performance as it is scarcely practicable in the presence of friends. The exciting stage of anæsthetics appears to be of the nature of a convulsion and the second stage resembles the congestion subsequent to it. This is probably the action of these drugs on the body and their use in convulsions by keeping the vessels in a state of

paralysis. If these conceptions of the nature of convulsions are correct it follows that beside removing the cause, if possible, they may be controlled by such remedies as either produce tone in the primary part at fault by very *small* and *repeated* doses of some medicine acting *directly* on that part, or by a large dose of some medicine sufficient to cause paralysis of the whole vascular system. Unfortunately it is difficult to make a correct diagnosis of the cause, or in the present state of our knowledge of materia medica exactly to adopt a medicine to use in this manner. Again, we are seldom called until the spasms are developed, consequently we are obliged to adopt those measures which give relief speedily to the urgent symptoms. The latter course is one which we may adopt with almost certain success, and as is seen in a study of the disease, it is not contrary to the efforts of nature herself, hence the use of anadynes and anasthetics is appropriate in doses sufficiently large to produce paralysis of the cerebral vessels and congestion.

Of the use of chloroform, chloral, bromide of potassium, warm baths, bleeding, &c. we are all acquainted. Perhaps nitrate of amyl might be useful on the same principle. I have no experience, but it appears to produce cerebral congestion very quickly, I think that it deserves a trial. Of all remedies I am most in favor of opium, and so much confidence have I in this remedy, which I have used for six years, that I rarely think of anything but my hypodermic syringe when I am called to a case of convulsions. The few unsuccessful cases which I have had, have not shaken my confidence in this remedy. I introduce the hypodermic syringe, loaded with three or four doses, and slowly inject at intervals of twenty minutes or ½ hours, until the pupil begins to contract. As soon as I find the pupil contracted I go home, confident that the spasms have ceased, at least until the influence of the medicine has passed. I have adopted this treatment in infants two or three months old with perfect success, and without any mishap. If infants

are more susceptible to opiates, they require less, and of course the treatment is not responsible for a want of caution. I have observed that if the pupil failed to contract after a reasonable dose of the opiate, the case is unfavourable, and in six cases which occurred to me, all died either from recurring convulsions or of meningitis, and here it may be objected that the opiate was contra-indicated in, or might produce inflammation of the brain, or meninges, but I am of a different opinion, and that opium is no more contra-indicated than any of the above named remedies, except perhaps the warm bath and bleeding, since the others produce the same result as the opium or the fit itself viz: congestion of the cerebral vessels. I think for certain reasons that cerebral difficulty is already established in those cases where the pupil refuses to contract, and from observation on a recent case, and a successful one which I saw before, I believe that leeches should be employed at once in cases of this kind.

Let me say a word about removing the cause. I think we should not be in too great a hurry. I have known a child to be in imminent danger of strangulation after an emetic, by vomiting while in a fit and drawing a piece of apple into the larynx during an inspiration; also to purgatives I am strongly opposed as adding another irritation to that already existing. I never give a purgative in threatened convulsions without first administering an opiate in order to leave room for the additional irritation.

It remains to say a few words about puerperal convulsions. Do they they differ in their nature from other convulsions? I believe that they do not only in this; that we know their cause to be congestion of the kidney, and since the kidney is so important an organ, when its functions are disturbed nature makes most strenuous efforts for relief. The same remedies on the same principle are useful in these as in other convulsions. I have injected morphia in $\frac{1}{2}$ grain doses while the patient was in the convulsion and also during the stertor that followed with uniform benefit, in

all preventing a recurrence for several hours. One case died on the third day. She was convulsed before labor began and was unconscious for the most part until she died. The urine became semi-solid on boiling and remained so during the whole period.

I saw one case where veratrum viride appeared to produce a very decided effect. This case occurred in the Lying-in Hospital during my studentship, about twelve years since. It was under the care of the late Dr. Hall. The convulsions in this case occurred at intervals of about 20 minutes and had lasted about twenty-four hours. Chloroform had been administered without much apparent benefit, and the case was considered hopeless,—such was the word sent to her friends. It was observed that just before a convulsion the pulse rapidly rose to 140 or more, and fell after the spasm had ceased, it occurred to us that if the pulse was reduced it might be some benefit ; so considering that the girl was of a robust constitution, and that it might be some time before the Doctor returned, we took it upon ourselves to prescribe. Accordingly, we gave 4 drops of the fluid extract of veratrum viride, and two more in half an hour. The pulse was reduced to about 80, and I think it was about an hour when the spasm, ceased and did not return. The girl made a steady and good recovery, which under the circumstances was attributed to chloroform. My impression at the time was that the medicine lessened the flow of blood to the head by diminishing the force of the circulation, but I think now, that like nausients, it diminished the arterial tension, by paralyzing the unstriped muscular fibres, and favoured passive congestion. I am not inclined to believe in the uræmic theory of puerperal convulsions, not only from the action of the medicines in general use in these cases, but from the fact that they are relieved by bleeding, since the blood which remains in the vessels surely possesses the same proportion of the poison ; and, as for the theory, that the difficulty is due to carbonate of ammonia, I may state that I have injected that salt into a vein without giving rise to any symptoms whatever.

My friend Dr. Duckett, of St. Joseph street, related to me a case where the bromide of potassium appeared to intercept the convulsion. The woman was one of four sisters, all of whom, as well as herself and her mother had convulsions with every child. She was put upon fifteen grain doses of the bromide of potassium, three times a day, and when labor began, as she evinced the symptoms which precede spasms, viz: headache, vertigo, imperfect vision and muscular twitches, he gave her three doses of thirty grs. each at intervals of one hour with complete relief of the symptoms, and she had no convulsion.

The bromide appeared to have no influence upon the labour. In a case of my own where there was a large quantity of albumen in the urine, and considerable œdema of the face and hands, for a month previous to the confinement, I gave ten grains of the bromide with a diuretic, three times a day for a week previous to labour with relief to the headache. No convulsions occurred. It has appeared to me from observations and enquiry that puerperal convulsions in very many instances is due to tight lacing. The mother as well as the daughters, in Dr. Duckett's cases, in whom the disease was considered to be hereditary, were all accustomed to tight lacing. The frequency with which convulsions are observed in primipara, and in unfortunate girls who naturally strive to conceal their condition tends to confirm this observation.

I will close by speaking of a condition which might be interesting to nervous surgeons and public speakers. Unconsciousnesss occurs in two opposite conditions of the vessels of the brain, viz., anæmia and congestion. A nervous person on attempting to act or speak is affected by a violent emotion which produces a spasm of the cerebral vessels, his heart beats violently, his face is pale, the index of the condition of his brain, and the words come forth slowly and with stammering, or he becomes confused and forgets entirely what he intended to say. It is not until symptoms of reaction set in, or as the popular phrase has

it, "until he gets warmed up," that fluency and ease is acquired. I have found a minute dose of morphia or a few whiffs of ether useful in this most embarrassing condition. Let me add the caution that two large a dose produces the opposite condition of the vessels quite as fatal to a successful result.

I dare say alcohol acts similarly on some constitutions.

I feel, in closing, that my limited experience prevents me from doing justice to the subject about which I have chosen to express a few ideas.

511 Wellington street.

TRANSLATIONS.

Asthma Dyspepticum.—(From a paper read before the Berlin Medical Society, Feb. 23, 1876, by Prof. Henock).

[The above name has been given to a peculiar form of asthma recently observed by Professor Henock. He relates the histories of several cases and appends such remarks as will, in his estimation, afford some explanation of their leading features.]

Case 1.—Walter M., aged 9 months, recently weaned, has been fed upon cow's milk for the last ten days, has cut five incisor teeth; with the exception of a tendency to costiveness has always been healthy. On the 21st of March, 1875, shortly after drinking some milk mixed with an equal quantity of water, he was attacked with vomiting, which was repeated on the 22nd every time milk was taken. The bowels had not moved since the previous day, the child appeared somewhat emaciated, cried a good deal and was so restless that a careful examination could not be made, the respiration was rather increased in frequency; after a few half grain doses of calomel three green stools were evacuated. On the morning of the 23rd the vomiting had ceased but there was a great change in the child's appearance;

the countenance wore an anxious expression, the respiration was quick and without rythm, the pulse small and difficult to count, the skin pale, the lips cyanotic, and there was complete apathy.

I now saw the child for the first time. Repeated examinations of the thorax did not reveal the slightest sign of disease either of the lungs or heart. Being unable to establish a diagnosis it was agreed to envelope the thorax, and abdomen as far as the umbilicus, in hydropathic packing in order to dilate the cutaneous capillaries, and to sustain the heart's action with Camphor and Benzoin given in doses of $\frac{1}{4}$ grain each every 2nd hour.

Notwithstanding these measures the symptoms all increased in severity, the collapse and cyanosis became more marked, the respiration was about 60 per miuute and the dyspnœa was attended with characteristic movements of the alæ nasi and the muscles of the neck, the extremities were cold. At midnight the pulse was imperceptible and the breathing began to be irregular ; death seemed imminent and as a last resort ten dry cups were placed upon the thorax, whilst they were being applied the child became quieter, then fell asleep and breathed more regularly ; after the lapse of another half hour irregularity of respiration was again noticed and the cups were reapplied. Hungarian wine and broth were also given in teaspoonful doses and retained,although previously every form of nourishment had invariably been rejected. At 6. a.m., of the 24th the respiration had diminished from 60 to 35, the temperature of the entire body was uniform, but the pulse could not yet be counted. At 10 a.m., we again examined the child in consultation with Prof. Traube, but without arriving at any positive result, though the epigastric region seemed somewhat sensitive to pressure.

No evacuation of the bowels had occured during the last twenty-four hours. After a bath sleep ensued, the skin became moister and the countenance less apathetic.

25th. Temperature somewhat increased, pulse 118,

distinctly perceptible, cyanosis gone. There has been another green stool.

26th.—Pulse 108; respirations 24. Urine abundant. No albumen. Skin moist with perspiration during the night. Face, right hand, and right foot slightly œdematous, (the child lay for the most part upon this side.) A lower incisor tooth has made its appearance.

27th.—Seems quite well.

April 5th.—A similar but slighter attack occurred, which, however, rapidly yielded to a renewed application of four dry cups.

We could not then agree as to the cause of the severe symptoms which the case presented. Notwithstanding the negative result of the examination, I was inclined to believe in the existence of some affection of the circulatory apparatus; but Traube, who indeed saw the child for the first time after it had commenced to recover, attributed all the symptoms to a reflex irritation proceeding from the stomach and based his arguments upon the experiments of S. Meyer and Pribram, reported in the "Juliheft der Wiener. Accadamie der Wissench. 1872."

These experimenters irritated the stomachs of dogs and and cats by means of electricity, heat and chemical irritants, and thus caused diminished frequency of the pulse, and increased arterial tension. They considered these phenomena due to a reflex excitement of the inhibitory fibres of the vagus, and of the voso-motor nerves. Although these reflex symptoms only occurred when both muscular and mucous coats of the stomach were irritated, it is easy to conceive that if, as in the above case, the irritation were intense, similar results might ensue though the mucous coat alone were affected. Traube's explanation of the symptoms was as follows:—Reflex irritation proceeding from the stomach caused contracton of the smaller arteries, hence the coldness of the extremities, imperceptible pulse, excess of blood in the venous system and right heart, accumulation of carbonic acid in the blood, and consequent dyspnœa and cyanosis.

This ingenious theory can only be accepted in explanation of the above case, by regarding the antecedent vomiting as the sole cause of the irritation of the stomach. Nor does the speedy relief afforded by the dry cups harmonize with the same, for they must be admitted to have caused a salutary revulsion of blood from the over-filled lungs. Moreover, the fact that an additional tooth made its appearance immediately after the symtoms had subsided might raise a doubt, in some minds, as to whether teething should not be regarded as the real, or at least, as an exciting cause of the outbreak.

Thus there remained some doubt as to the nature of the phenomena above described, until a few months later, the following case came under my observation, and revealed much more clearly than the preceding, that the irritation of the stomach will account for all the symptoms described.

Case 11.—On May 10th, 1875, a girl æt. 9, was brought to the Charité out-door department, in the following condition ;

The face was pinched and anxious-looking, and together with the mucous membrane of the nose and mouth was slightly cyanosed. There was excessive dyspnœa, but the respiratory movements of the thorax were exceedingly shallow and amounted to 70 per minute, at the same time expiration was attended with a moaning sound ; the pulse was 108, and very small, and the case seemed altogether so serious that we heard with astonishment the child had walked a considerable distance with her mother to the hospital. The spmptoms became more and more urgent, but after several carefully conducted examinations of the thorax we were unable to discover any trace of disease of its contained viscera.

The child complained of shortness of breath, and weakness, headache, and soreness in the epigastric region, which was slightly fuller than normal, tympanitic, and decidedly tender on pressure. From the history of the case we only learned that she had been well until the previous

evening when she began to complain of pain in the stomach. Passed a very restless night, and in the morning the cyanosis and dyspnœa made their appearance. The complete absence of any physical signs pointing to disease of the thoracic viscera was all the more striking from the fact that all the other symptoms seemed to indicate œdema of the lungs, or a large pericardial effusion, which however certainly did not exist. On the other hand, the epigastric fullness and tenderness on pressure pointed the stomach as the seat of the disease. Taking into consideration the apparently grave state of affairs and the absence of any obvious cause, I determined not to take active measures, but order small doses of morphium and await results. The opium, however, was not administered, for the child had scarcely reached home when violent vomiting came on and recurred at intervals till evening. The contents of the stomach, thus evacuated, consisted of the remains of food, including some large pieces of undigested egg. This led to the discovery that on the previous day the child had over-exerted herself in running about the city, and had subsequently bolted a hard boiled egg. A quiet slumber followed the removal of these ingesta and upon awakening the child was well.

This case has for me the significance of a physiological experiment, and is the more valuable from the fact that the subject of it was a human being, and not one of the lower animals. We see here a whole series of phenomena produced by irritation of the stomach, from the presence of undigested food, disappear like magic after removal of the irritating material. Again the dyspnœa, frequent and shallow respiration, small pulse, and cold extremities, led me to infer some grave affection of the heart or lungs, but again a careful examination of these organs failed to reveal any abnormality. Although the headache and epigastric tenderness, should have aroused my suspicion as to the the real seat of the difficulty, both these symptoms were so slight in comparison to the dyspnœa, that I may be excused for having overlooked them. Mechanical compression of the

thoracic viscera was excluded by the undoubtedly normal position of the diaphragm; hence the phenomena mentioned, could only be ascribed to the agency of the nervous system, and the explanation given by Traube, based upon the experiments of Mayer and Pribram, may be accepted for this case. In support of this view may be adduced the liability of dyspeptic children to convulsions, in consequence of indigestion, which are obviously the effect of anæmia of the brain from reflex spasm of the cerebral arteries resulting from the gastric irritation. I have also seen syncope, coldness of the extremities, collapsus faciei &c., caused by the presence of a tapeworm in the intestines of a child, and explicable on the same hypothesis.

The question now arises whether in addition to the results obtained by experiment there may not be other causes capable of inducing gastric irritation on the one hand and disturbance in the function of respiration on the other. Without entering upon any discussion concerning the "Tussis Stomachica" of the older authors I may mention the case of a boy already reported in my "essays on diseases of children" in the year 1868 (Neue Folge. Pag. 314.) This case was one of fermentative dyspepsia, cured by the use of kreasote, and in which dyspnœa accelerated respiratory movements, and panting expiration were the chief features without, however, any signs indicating spasm of the blood vessels. To be borne in mind also, are those by no means rare cases of dyspepsia attended with a peculiar feeling of oppression and an irresistable desire to take a deep inspiration which, nevertheless fails to afford relief for a time, though the attack usually ends with such an inspiration or with repeated yawning. Possibly we may have here to do with a reflex action implicating the vagus, for under similar circumstances there is often intermittent action of the heart.

But to return from this digression to the subject of our remarks. I am inclined to think cases similar to those I have related are by no means rare although the current literature of "hepatico-gastric affections" does not mention

them. In addition to the cases already described I have had the opportunity of observing two others.

Case 3. Marie L. æt. 3 months was brought to the hospital, Feb. 3, 1875, that is, before the one first described. On looking over my case book I was struck by its resemblance to the latter, although the symptoms were less characteristic. The child was being brought up by hand and had always been healthy, but for the last three days the bowels had not moved. During the last night breathing became embarrassed and towards morning convulsions occurred. I found cyanosis, shallow respiration (50–60 per minute) a small rapid pulse, cold hands and feet and a moderately distended abdomen. Examination of the thorax revealed no abnormality and there was no cough, but the appetite had failed entirely since the previous day. I ordered a teaspoonful of Syrup. Spin. Cervin. (Buckthorn) to be taken every two hours which caused a free action of the bowels, and on the following day the child was well.

Case 4. On the 9th of January a boy 9 years old was brought to the hospital by his mother who said he had been treated at another hospital for "disease of the heart" two years previously. For six days he had been suffering from pain in the epigastric region which was somewhat prominent and sensitive to pressure; but the most striking symptoms were, the quick and shallow respiration (over 50 per minute) the slightly cyanotic tinge of the face and lips, and the small and frequent pulse (120 or more to the minute); coldness of the extremities was of doubtful import, because the boy had just come in from the cold air. The physical signs showed the lungs to be healthy but the apex beat of heart was found to alternate between the fourth and fifth intercostal spaces and at the same time the first tone was accompanied by a slight blowing murmur whilst the second pulmonic sound appeared to be abnormally distinct. The præcordial dullness extended beyond the right sternal margin. In addition to these signs of mitral insufficiency and enlargement of the right ventricle, the tongue was

thickly coated and the breath fœtid. An emetic was administered and on the following day all signs of disease had disappeared with the exception of those connected with the mitral insufficiency.

I venture to think the records of these cases suffice to show a direct dependence of the phenomena which they presented upon an irritated condition of the stomach, and therefore hold that the term "Asthma dyspepticum" is a suitable designation for them. An attentive observation will doubtless increase the list of such cases and they will probably be found to occur most frequently in city practice.

F. B.

Dr. Ortille.—Treatment of Convulsions in children by Anæsthetics.—(Bull. de Thérap. quoted in Schmidt's Jahrbucher No .1. 1876.

Half of the cases of convulsions during childhood run a favourable course, rarely does an attack lead to death. As a rule they depend upon dentition, and are accompanied by constipation, In other cases transitory affections of the digestive tract, indigestion, or the presence of worms, are the cause. These last, however, do not always end favourably, but death results from the intensity of the attack, from asphyxia, or from congestion of the nerve centres, whieh the author regards as primary not secondary. A cerebro-spinal irritation is always the predisposing factor ; it leads to hyperæmia, turgesence, and swelling, causing considerable tension of the congested parts, and finally to a greater or less degree of compression of the brain substance, with elevation of the temperature.

As a reaction to this compression a convulsive attack follows, whose determining cause is also the congestion.

The author compares these processes with those in partial or general hypertrophy of the brain, and dropsy of the ventricles, which also, by compression of the brain substance, lead to convulsions. On this account he regards those remedies as most effective which in any way produce

anæmia of the brain—energetic derivatives, cold, anæsthetics. The last named remedies weaken the activity of the ganglion cells, lessen the determination of blood, and produce a reduction of the congestion by causing contraction of the blood vessels, and in consequence anæmia of the brain, and sleep. As authorities the author quotes Durham, Bertui, Donders Claude Bernard and Hammond.

In this employment copious, almost critical, perspirations supervene, which decide upon the course. Anæsthetics are recommended particularly in the severe cases in which a fatal ending is feared; in such the physician must do everything to produce anæmia of the brain, and should not fear to change quickly the remedies in order to relieve the congestion.

The principal remedies which the author employs instead of derivatives, purgatives, and cold are, (1) the compression of the carotids, and (1) chloral hydrate and chloroform. A report of 6 cases follows, in the first of which compression of the carotids, in a girl 6 years of age relieved within 2–4 a convulsive attack of over two hours' duration. He uses the caution to continue the compression for a short time after the cessation of the attack. Six months later the same child was again attacked and compression of the carotids did not succeed, the child had become so fat; ℥ss of chloral hydrate was given, but the attacks increased; finally with chloroform they were controlled within 5 minutes. In other cases the author speaks favourably of chloral in 15 gr doses. In the same connection he speaks of the convulsions occurring in the course of organic kidney disease, and as a consequence of the congestion induced by pregnancy. The predisposing cause of the convulsions is here also cerebral irritation, caused by the altered condition of the blood: the determining cause however, is always the compression of the nerve centres, by the congestion, in an unyielding cavity, which leads to dropsy of the ventricles, or œdema of the brain or its membranes. In such cases the compression (of the carotids) must be continued for a much longer period as the cause disappears slowly. W. O.

Oxygen as an Antidote to Poisoning by Phosphorus.

Köhler and other Germans have pointed out the fact that fresh rectified oil of turpentine does not act so efficiently as an antidote to phosphorus as the ordinary article which

has been kept for a length of time, this difference being due to a larger amount of oxygen contained in the latter. In consequence of this observation, Thiernesse and Casse were led to make experiments for the purpose of ascertaining whether oxygen alone would not act as an antidote. They gave phosphorus to a considerable number of dogs, in sufficiently large doses to produce its fatal effects, and when the symptoms of poisoning became pronounced, injected oxygen gas into the saphena vein in large quantities—up to 800 c.m. Of twenty-two experiments the results in nineteen were favourable ; the animals did not die from the poison. These experimenters are therefore of opinion that oxygen gas introduced into the veins in large quantities counteracts poisoning by phosphorus, and that the antidotal effects of oil of turpentine can only be ascribed to the oxgyen it contains.

Oxygen gas like common air may be freely injected into the veins, without danger, *provided it be done slowly.*

The Ætiology of Angina Pectoris.

According to G. See, (France Med., No. 26, et Seq. 1876.) Angina Pectoris is never a simple neurosis but always depends upon ischæmia of the heart. As causes of this condition are to be reckoned ; 1st. mechanical alterations of the coronary arteries, degeneration of the muscular tissue of the heart and dilatation of its cavities, in consequence of which the coronary arteries are unable to carry a sufficient supply of blood to the heart.

2nd. A condition more rarely met with, in which the affections of the coronary arteries is purely functional, and and may be caused by smoking, hysteria, &c. In the great majority of instances an actual organic lesion exists. See thinks all the symptoms of an attack of angina can be explained by this ischæmia, which is also in his opinion, the cause of death.

Deficient supply of blood to the myocardium, and the terminal filaments of the vagus contained therein gives rise both to the pain and to the feeling of suffocation. This irritation of the sensory nerves induces a reflex excitement of the inhibitory motor fibres of the vagus thus causing the pulse to become slower, and giving rise to interruption of the heart's action towards the end of the attack ; lastly the vagus becomes exhausted and the heart again contracts rapidly.

The radiation of pain towards the shoulders, arms, and

other parts of the body is due to transference of painful impressions from the sensory filaments of the pneumogastrics to those of other nerves.

The palliative measures to be employed are during the the attack, hypodermic injections of morphia, or enemata, containing 30–45 grains of chloral hydrate. Some cases have been relieved by spiritus mindereri, in doses of ℥ii to ℥iii, with an equal quantity of water.

Sée has had no experience of Amyl Nitrite in these cases.

During the intervals he recommends bromide of potassium, alternated with digitalis. The patient should live quietly and temperately, avoiding tobacco, tea, and coffee entirely but a small quantity of alcoholic liquors may be allowed.

F. B.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Excavation of the whole of one Lung in a case of Phthisis.

Under the care of Dr. REDDY. Reported by J. D. CLINE, B.A., M.D.

William Skinner, æt. 41, was admitted into the General Hospital in March 1876. He had been a patient in the hospital several times in the last three or four years. On admission the disease was evidently in a very advanced stage. His voice was very husky, and scarcely louder than a whisper. He suffered great pain in swallowing, so much so that he could not take anything solid. The expectoration was purulent and very profuse, and brought up with great difficulty, and exhaustion. In the right lung there was blowing, breathing, and gurgling in all the regions. In the left the breathing was amphoric, most distinctly so in the infra-clavicular region in front, and at the root of the lung behind. The percussion note over this lung was not amphoric ; not the note which resembles that of pneumothorax,

though very hollow. The patient died about the 10th of April.

Autopsy 36 *hours after death.*—The body was extremely emaciated. The right lung was filled with cavities of all sizes up to one in the apex nearly as large as the fist. There were no pleuritic adhesions on this side, except at the extreme apex. Some of the cavities were quite superficial, the outer wall being formed by the pleura only, the yellow purulent matter showing through it. On the left side there was no lung tissue, except a small piece at the base in front, about two inches long by an inch and a half thick, which crepitated slightly. The rest was one immense cavity. The pleura was firmly adherent all around, and as it was detached carefully it collapsed like the flaccid walls of a large bladder. The capacity of this cavity was 42 ounces. The walls were thin, consisting of the pleura only, except in the situation above mentioned. The inside was almost dry, and traversed by numerous trabeculæ, which represented the thickened vessels, and some bronchi. The large bronchi were ulcerated to a level with the walls.

The larynx was extensively ulcerated. The epiglottis was thickened and rough on its outer surface, margin and base of inner surface. The vocal chords were much thickened. The whole of the arytenoid cartilages except their bases, were exposed and rough, being in a small cavity which had ulcerated around them ; and the true vocal chord on the the right side was separated from its attachment to the arytenoid cartilage by a deep notch of ulceration. The kidneys and liver were slightly amyloid, the latter appearing to be fatty also. The spleen was very large and amyloid. The amyloid disease was very prettily shown in the intestines, by the characteristic dark brown color produced by iodine, tracing out the course of the small vessels.

I have never seen recorded a specimen of such extensive excavation. The length of time that this man lived with the small amount of respiratory surface which was found in these lungs, is also interesting and marvellous.

Reviews and Notices of Books.

A Treatise on Surgery, its Principles and Practice.—By T. Holmes, M.A., Cantab: Surgeon to St. George's Hospital, &c.; with four hundred and eleven illustrations, chiefly by Mr. Westmacott. 8 vo., pp. 960. Philadelphia: Henry C. Lea, 1876.

The author of this treatise is well known as the editor of the large work in five volumes entitled "A System of Surgery by various authors." He has also given us a very excellent treatise on the surgical diseases of children, which is notable for the clearness, accuracy and elegance of its composition. When it was announced that Mr. Holmes was preparing for the press a treatise on surgery, we looked forward to its publication with great interest as we felt certain that it would be a fair exponent of British surgery given in that pleasing style which characterised his former productions, nor were we disappointed when we received a copy of the English edition. The copy before us is a reprint from the publishing house of Henry C. Lea of Philadelphia. The author in his preface states that he intended "this book to be to some extent an introduction to the more elaborate system of surgery of which I am the editor," and it may be observed that the author quotes from that treatise to some extent, at the same time it will be seen that there is throughout the work evidence of personal observation and experience so that the writing is no servile copy either in text or teaching of the former treatise. The author has certainly succeeded in giving a highly practical account of surgical injuries, and diseases.

The work is divided into forty-four chapters. In the first five we have considered the subject of inflammation, the process of union of wounds, complications of wounds and injuries, poison wounds, hemorrhage and collapse, burns and scalds. In the section on the mode of dressing wounds the author gives a description of the antiseptic method and he states his strong conviction of the beneficial results of that method

of treating wounds, in saying this he does not declare his adhesion to the "germ theory of disease" but remarks that by adopting the method advocated by Mr. Lister greater care in the dressing of wounds is adopted either by the surgeon himself or his assistant. This may be considered the great secret of the success of the antiseptic method of dressing wounds. In the chapter on hemorrhage the author gives a very clear description of the various means employed by the surgeon to restrain the bleeding in wounded vessels. The use of the carbolic catgut ligature is discussed and he proves by one case at least that the employment of this means is capable of obstructing the vessel without actual division of its coats, he fully recognises however that this is not attainable in every case and remarks that if it were so secondary hemorrhage would be unknown. In giving his own experience of the use of the carbolised catgut ligature he states that the "constant use of this form of ligature in operations of all kinds for several years has convinced me that secondary hemorrhage is far rarer than with the silk ligature, even in wounds which suppurate freely," and furthermore that the presence of the ligature itself does not interfere with the process of primary union, nor does it act as a foreign body. This is certainly very convincing evidence and one which we can fully endorse so far as our limited experience goes for although we have not, so far, ligated large vessels with the carbolised gut, we have on numerous occasions resorted to its employment and always with perfect results.

In this chapter the author gives a full description, after Pirrie, of acupressure and compares that method with an older method, or torsion. In expressing an opinion on both the relative value of these methods he remarks that acupressure and torsion are perfectly reliable methods of arresting hemorrhage but as a matter of private opinion he states that neither of them appear to be so convenient, so safe or so likely to promote the rapid union of a wound as the carbolised ligature. The chapter on burns and scalds

is short but sufficiently full for a work of this character, the author adopts the classification of Dupuytren ; to this chapter is appended a short description of lightning stroke, which according to our author occasions "injuries which are the combined effect of electric shock, mechanical concussion and burn."

In chapter six we have considered the general pathology of fractures and dislocations, and also the process of union in the hard parts, after which the author passes on to individual injuries, commencing with those of the head and spine, and face, injuries of the neck, of the chest, abdomen and pelvis, of the upper and lower extremities. These latter are particularly full, and are amply illustrated, especially fractures of the cervix femoris, there are also given some illustrations after Biglow, of dislocations of the hip joint.

The chapter on gun shot wounds includes injuries of the head, chest, abdomen and extremities. In this chapter the comparative results of excisions, of the knee and hip, and shoulder and elbow joints are referred to, and he remarks that the two latter operations were brought into general acceptance in this form of injury, mainly in consequence of their success, in warfare, while excisions of the knee and hip, although they have sometimes succeeded in war, can count very few successes. This well-known fact leads to a marked distinction in the surgery of gun shot wounds of the upper and lower extremities.

The subject of Tumours the author divides into two well marked classes, firstly,what are termed *homologous*,in which the growth resembles, in exactness, anatomically, some tissue of the body. These increase in size, displace structures but do not invade them ; clinically they are otherwise called benign or innocent. Secondly those which do not present any resemblance to the normal tissue in which they are situated, and hence are called *heterologous*. Clinically, this class show a tendency to ulcerate, invade all structures and influence the general health. Tumours of this kind are

malignant. But besides these two classes which, in well marked examples are easily recognized, a third class is constantly seen, which clinically and anatomically belongs to neither division, to these the author has allotted the term *sarcoma*, a term revived by the modern German school, and which is used to designate a growth or tumour whose structures present some resemblance to the rudimentary forms of some natural tissue of the body. The illustrations in this chapter are very clear and good. Scrofula receives separate consideration, in this the author describes the subject of tubercle, its kinds, manner of formation, and connection between it and ordinary inflammation.

Hysteria is the next on the role, at first sight a novel subject to be found discussed in a surgical treatise, but here our author goes into the question of nervous mimicry and nervous affections generally, which may to a considerable extent bother the surgeon. Space will not permit our discussing each chapter as it comes before us. Those on diseases of the bones, joints, and diseases of the arteries, are very clear, and contain a vast amount of accurate and reliable information. The illustrations are particularly good, nearly all of them being from preparations in St. George's Hospital Museum. Amongst the illustrations we observe several thermographs, one of traumatic fever, one of pyæmia, one of hectic fever, of erysipelas, and one of tetanus. There is a table of contents and list of illustrations, but we regret to notice that in the American edition the publisher has omitted marginal notes which form a distinguishing feature of the orignal work. We with confidence recommend this work to the professsion as being one of the best text books that has issued from the press.

A manual of minor Surgery and Bandagiug. By Christopher Heath, F.R.C.S. Surgeon to University College Hospital, and Holme Professor of Clinical Surgery to University College, London, &c. Fifth edition, 8vo: pp. 308. Philadelphia; Lindsay & Blakiston, 1875.

This little work may be regarded as an indispensable adjunct to the library of all young surgeons, and even those of more advanced years may benefit by its practical teaching, more especially when from circumstances they have

lacked the opportunities enjoyed by the fortunate few who have held the responsible though valuable post of resident surgeon to an hospital.

In the introduction the author makes some admirable remarks on the relations between the house surgeon of an hospital and the other officials, and also on his duties to the patients under his charge, and to the public. Having himself been House Surgeon at Kings College Hospital, Mr. Heath speaks with authority, pointing out the various difficulties of the position, which however can be readily overcome, by care and attention, and a proper appreciation of what is due to himself and others.

The work consists of thirteen chapters, and in all of them will be found practical directions for the treatment of surgical diseases and injuries. In chapter 1st. is discussed the subject of hæmorrhage, in which will be found many practical suggestions, not to be met with in the larger works on Surgery. There are in this chapter specific directions, short, concise, and to the point, how to treat scalp wounds, wounds of the face, bleeding from the nose, cut throat, ruptured frænum, bitten tongue, stabs, cuts, wounds of the palmar arch, wounds of veins, etc., and towards the close of this chapter the various methods employed for the arrest of hæmorrhage, as pressure, the tourniquet, forceps, ligatures, etc., and also the methods of tying, acupressure and torsion.

There is a good chapter on various surgical operations, such as the house surgeon of an hospital is sometimes called upon to perform, but the author points out the necessity for weighing well the question of urgency of the case, lest the house surgeon should come in collision with the attending surgeon. As the author very correctly remarks, "Some visiting surgeons wish to do everything themselves, and are very wroth if a house surgeon has opened an abscess or tightened a bandage." To this we may observe that a certain degree of latitude should be accorded to the house surgeon of a hospital; and, further-

more, the attending surgeon should bear in mind that his subordinate officer is there to use his own judgment, and if he does things well, deserves credit rather than censure.

There is a good chapter on bandaging, and throughout will be found specific directions, with good illustrations of the method of applying surgical apparatus. The work is illustrated with eighty-six wood cuts. There is a chapter on case-taking ; also one on post mortem examinations, at the close of which is a table of the average weights of the various organs of the body. The work is addressed throughout to house surgeons of hospitals, but although it affords to gentlemen occupying those responsible posts most important and valuable information, its teaching will be found of use to all.

Periscopic Department.

MEDICINE.

Some Remarks on Whooping-Cough and its Treatment by Carbolic Acid Inhalations.—By Samuel Lee, M.R.C.S.

Before alluding to the treatment of whooping-cough by inhalation, we may with advantage consider what means we have at our disposal in retarding the spread of the malady. It is apparent that, in a considerable majority of cases, no precautions likely to lead to the desired result are adopted ; and at first sight it appears somewhat surprising that isolation of patients suffering from scarlet-fever, small-pox, and enteric fever, should be strongly advocated, and in many instances enforced, when the victims of pertussis, which may be looked upon as one of the most fatal diseases to which children are liable, are submitted, as a rule, to no such restraint. There is reason to believe that the isolation of patients in a special ward in some of our hospitals,

both in London and the provinces, would be beneficial. In a former number of the *British Medical Journal*, we were favoured with an interesting communication from Mr. Richard Harrison, of H.M. Convict Prison, Dartmoor, on the treatment by carbolic acid inhalations ; and the general conclusion arrived at was that, in the majority of cases so treated, considerable relief to the more urgent symptoms was the result. The inhalation of the acid may be conducted in two ways, either by long-continued inhalations of a weak solution, or by strong inhalations three or four times a day. For this purpose, I have used the steam-draught inhaler, by means of which, owing to the free admixture of fresh air with the vapour to be respired, the inhalations can be prolonged for several hours ; and, there being no effort of inspiration, one of the main difficulties in obtaining the desired result in young children is overcome. In cases complicated with obstruction of the bronchial tubes with mucus secretion, a stimulating inhalation will sometimes excite spasmodic contraction and expulsion of the offending material. I have used the carbolic acid inhalations in the mild and severe forms of the disease, and in both with considerable relief. In three cases that have come under my notice in adults, in one of which the malady had continued in spite of all treatment for eight months, attended with hæmoptysis and severe and frequent attacks of coughing, the relief obtained by inhalation of the acid was very marked. I hope on a future occasion to be able to communicate to the *Journal* a report of cases treated by the above method.—*British Medical Journal.*

On treatment of Convulsions in Infants.

Mons. Blanchez, in a lecture on diseases of children, in the *Medical Times and Gazette*, lays down the following rule for the treatment of convulsions. If it be a single attack, and gives no signs of a tendency to recur, it is best to confine ourselves to some hygienic precausions, such as secur-

ing efficient ventilation, etc. If the attacks run into each other, or recur at short intervals, revulsives should be applied to the lower extremities, compresses of cold water, or of water with ether, being also laid on the temples. Compression may at the same time be made on the carotid arteries, as recommended by Trousseau. The pulsation of these vessels must be sought for at the lateral part of the neck, and then they must be gradually compressed backward toward the spinal column. The amelioration should be rapid ; and if after two or three minutes it has not manifested itself in an evident manner, the compression should not be longer continued. Inhalations of chloroform may then be resorted to, administering them in a very gentle and gradual manner. In order to avoid all danger, slight as this is, it is necessary that a certain quantity of air should be always mixed with the chloroform vapours. In some cases special indications present themselves, as for the employment of an emetic when it is well made out that the convulsions are due to indigestion. When the attack has been overcome, we must try to modify the the general eclampsic condition by having recourse to anti-spasmodic treatment ; but the management of agents of this description requires great prudence, several of them being of a dangerous character. Their dose is of great importance. For an infant, from eight to fifteen months old, we should never exceed the dose of thirty centigrammes, after having commenced with five centigrammes. The maximum dose of belladonna powder is ten centigrammes, after commencing with one, increasing it very gradually, and carefully watching the throat and pupils of the child. We may proceed more boldly with oxide of zinc or James's powder (which M. Blanchez has not found of any special utility), of which ten centigrammes may be given every two hours ; but bromide of potassium and chloral are to be preferred to any of these remedies. Of the bromide from ten to twenty centigrammes may be given every two hours, until fifty or sixty centigrammes are reached in an infant, and from two

to three grammes in a child of seven. The effect should be manifest at the end of twenty-four hours, or the dose should be increased. A mixed treatment of the bromide and chloral gives little better results, the bromide being given during the day and the chloral at night. The maximum dose of the latter agent is twenty-five centigrammes for an infant, and fifty for older children.—*Med. and Surg. Reporter.*

The Eucalyptus Globulus as a Cancer remedy.

The profession may well look with distrust on alleged "cancer cures," but the journalist must not omit to mention them. The latest is the famous *eucalyptus globulus*. The *Doctor* quotes six cases reported by Prof. Luton, of Reims, in the *Progres Medical*, all successful; and as Prof. Luton is a respectable practitioner, and the subject most interesting, we give them :—

The first case was that of a woman, 78 years of age, suffering from an encephaloid tumour of the breast, in whom the administration of the tincture of eucalyptus was followed by phlegmonous swelling of the tumour, erysipelatous redness of the surrounding skin, mortification of the tumour, and rapid falling off of the eschars, accompanied with fever, lassitude, anorexia, furred tongue, headache, and delirium. The cicatricial remains of the tumour had a keloid appearance, and represented the stroma of the original disease. In spite, however, of the continued use of the tincture, this mass subsequently increased in size, and began to assume some doubtful signs of malignancy, when Prof. Luton substituted the powdered leaves of the eucalyptus, one gramme daily, for the tincture, and after three or four days the same phenomena of death of the tumour occurred as on the first occasion. The patient is still under observation, and hopes are entertained by the Professor that the case will terminate in complete cure.

The second case was that of a woman, sixty-eight years of age, suffering from symptoms of cancer in the stomach for nine months, and a tumour in the abdomen as large as a turkey's egg, to the left of the epigastrium, and apparently attached to the surrounding parts. She was ordered ten grammes of the tincture of eucalyptus daily, with divers interuptions, during five months, and at the end of that time the tumour had become much smaller, isolated and more movable, less firm in consistence, and more sensible to pressure ; and at the same time the patient had lost the cachectic appearance, and appeared in better health. During the interruption in the administration of the medicine, the patient's sufferings were increased, and a return to it produced a marked amelioriation. She is still under observation.

The third case was that of a man, fifty-three years of age, suffering from a tumour in the right hypochondriac and epigastric regions, and presenting many of the subjective symptoms of cancer in the stomach. After three months treatment by the tincture of eucalyptus, ten grammes daily, the patient was much better, and the tumor had diminished in size and consistence. He is still under treatment.

The fourth case was that of a man, 52 years of age, suffering from cancer of the stomach for ten and a half months, and in a much worse condition than the two preceding. In fact, he was reduced to an incredible state of emaciation by the incessant black vomiting, and was almost moribund. Ten-gramme doses of the tincture of eucalyptus were administered, with great relief to the symptoms for a short time, but the vomitng soon returned, and could only be controlled by subcutaneous injections of sulphate of soda. The patient is still under observation, and Professor Luton considers that his life has been considerably prolonged by the treatment.

The fifth case was that of a woman, 45 years of age, suffering from excessive metrorrhagia, uncontrollable by the usual hæmostatics, with symptoms of cancer uteri in its

early stage. The hemmorhage was completely controlled in less than eight days by ten grammes of the tincture of eucalyptus daily. After the relief of the metrorrhagia, the woman would not submit to an examination, so that there is some doubt about this case.

The sixth case was that of an old gentleman, nearly 80 years of age, who had had an epithelial cancer removed, by the knife, from the root of the nose; but the disease subsequently returned, and attacked the nose and angle of the right eye, producing a large ulcerating tumor, which bled excessively. The first dose of the tincture of eucalyptus produced a sensible effect, and after a very few more the tumor perished and was thrown off, leaving a large excavation with healthy granulations. The process of reparation proceeded most favorably, and was almost completed at the time of publishing the case.—*Med. and Surg. Reporter.*

Treatment of Varicose Ulcers by the Tartrate of Iron and Potass.

Dr. Bourguignon having derived so much advantage from this substance in the treatment of phagedenic chancre, as recommended by Ricord, was induced to extend its application to chronic wounds in general, and especially to varicose ulcers of the leg with hard, well-defined edges and unhealthy surfaces. For the last ten years he has found these obstinate cases readily yield to this treatment, so as to become cured in two or three months. A solution of from two to six parts of the tartrate (according to the sensibility of the ulcer) is to be made in 100 of pure distilled water, a few drops of ammonia being added to prevent any precipitation. Pledgets of very fine charpie are to be soaked in it, and applied to the ulcer night and morning, and covered over with a thick layer of cerate, which must be so removed, with the aid of tepid water, as to leave none of the charpie sticking in the ulcer. After cicatrisation has commenced, the lotion may be applied only in the

evening, simple cerate being substituted in the morning. If the application is painful at first, opiate cerate may for a while be employed alternately. The tartrate is also a valuable remedy given internally, a mixture of four grammes in 150 of distilled water forming a valuable analeptic in chlorosis, chloro-anæmia complicated with gastralgia, and in dyspepsia, when solid preparations of iron, are not borne by the stomach. Given in doses of a tablespoonful before each meal, it much facilitates digestion. After a few weeks, more energetic ferruginous and stomachic preparations may be substituted.—*Union Méd.*, March 30.

Chloral Enemata in Infantile Convulsions.—M. Polaillon stated at the Paris Medical Society that encouraged by the benefit he had derived from chloral in puerperal convulsions, he had in two cases administered it with success to children as an enema (three grains in five drachms of water.) Calm sleep and a cessation of the convulsions followed, and a similar enema given 24 hours later completed the cure. M. de St. Germain believed chloral an eminently useful remedy in convulsive diseases, and related a case in which he had given it by the mouth to a child fourteen years old, the subject of tetanus, in doses increasing from three to twelve grammes per diem, the patient recovering on the seventeenth day. M. Blondeau had, with Trousseau, kept a child ten years of age under the influence of chloroform for twelve hours with success. M. Lolliot also prefers chloroform, and had kept a child three months of age under its influence during twenty-four hours. M. Lunier, in a case in which bromide of potassium had been used without effect, found that chloral arrested both the convulsions and the accompanying fever. He thinks that, carefully employed, it is preferable to chloroform, but that we must be cautious in giving large doses —*Union Méd.*, March 23.

SURGERY.

Note on the treatment of Tetanus by Nerve-stretching. By GEORGE W. CALLENDER, F.R.S., Surgeon to St. Bartholomew's Hospital.

In a paper read before the Abernethian Society*, Mr Milner has advocated the treatment of tetanus by nerve-stretching, and in some observations on this operation upon nerve-trunks† I have expressed my regret, in narrating a case of tetanus, that the peroneal nerve was not exposed and stretched. Since this was written no case of traumatic tetanus has come under my care, but had the opportunity been given me I should certainly have planned an operation such as I have indicated, supposing, of course, that the nature of the case permitted me to stretch a nerve-trunk between the site of injury and the nerve-centres. I am glad to hear that quite recently M. Verneuil has had under his care in La Pitiè a case which he will, I hope, shortly publish. A man had suffered from a severe crush of the hand, and, following this, showed the symptoms of tetanus. M. Verneuil exposed the median nerve at the elbow, and the ulnar at the wrist, and proceeded to exercise traction on them. The patient recovered completely.

I hope that this note may lead to a further trial of this method of treatment. The operation is not a severe one. The nerve is exposed and is stretched, when freed from its surroundings, by traction with an ordinary vulsellum, from its central connexions. No harm is likely to be sustained as a consequence. There is now abundant evidence, in the cases reported by Billroth, Nussbaum, and myself, of the tolerance with which nerves submit to forcible stretching, so far as the after performance of their functions is concerned. In view of the unsatisfactory results of the treatment of traumatic tetanus as at present conducted, there is full justification for the performance of the operation as, at least. a last rescource, although I should myself advocate its trial, as in the case under the care of M. Verneuil, as soon as the signs of the disease are destinctly recognized.

The Lancet

*St. Bartholomew's Hospital Reports, vol. xi., 1875, p . 287.

† THE LANCET, June 26th, 1875; Clin. Soc. Trans., vol. vii., 1874 p. 100.

CANADA

Medical and Surgical Journal.

MONTREAL, JUNE, 1876.

COLLEGE OF PHYSICIANS & SURGEONS, L. C.

The semi-annual meeting of the Board of Governors of the College of Physicians and Surgeons of Lower Canada, was held in this city on Wednesday the 10th May ultimo, when some very important business was transacted.

In our last we published a series of amendments which it is proposed to make to our present act of incorporation. These were fully discussed at the meeting, and their general tenor accepted. A committee was named for the purpose of drafting a bill of amendments to the present act, which will be again brought up for discussion before the College at its next meeting in September; after which it will be submitted to the Quebec Legislature, and we should suppose, that coming as it will, from a recognized body, who hold status as the representatives of the Profession in this Province it will becomc law. It is greatly to be desired that the profession more generally should assist in building up an institution which has, during the past few years been allowed to languish, we might almost say die of innanition. We have heard some strictures concerning the usefulness of the College and the desirableness of prolonging its existence. We are inclined to the belief that it would be far better for the malcontents to comply with the regulations of the College and become members, in due course of time, take some interest in the proceedings of the College, and if the old fogies in whose hands the affairs of the College are at the present, time are too slow

for our young progressive fellow-countrymen, simply assist in putting in better men.

A very pertinent question is asked by the young gentleman who edits the "L'Union Médicale du Canada." He is desirous of knowing what good the Medical profession has derived from the establishment of the College of of Physicians and Surgeons of Lower Canada. To this we can simply reply that no person can legally practice his profession in this Province without holding the license of the College. Before the establishment of the College,the Profession in Lower Canada was governed by an act or ordinance passed in the reign of King George the third. Similar acts existed in all the colonies under the British Crown—many are in force to this day. By the terms of that act the members of the Board were appointed by the Crown, under the present system the members of the Board are elected by the profession. This may not be considered by our contemporary a gain in the right direction. The article alluded to appears to us to be terribly revolutionary, with very little knowledge of facts appertaining to the question at issue. But again, the status of Medical education has been raised since the passing of the act of 1874, before the passing of that act, any person could demand an examination from the Board without any evidence of having attended a curriculum of study, under the act a curriculum is demanded, and before commencing to study medicine the candidate must pass an examination in the preliminary branches of general education. These are surely gains in the right direction.

We are not anxious to excite the terrible ire of our contemporary, as we fear he would slay us without mercy, but simply beg of him to become a member of that do nothing College, and if no better thing can come of it, he will, at least, have the satisfaction of sharing in the "Homeric supper" which he suggests, or of being able to write his own epitaph on the monument which will have to be raised to the memory of the late College of Physicians and Surgeons of Lower Canada, after its effulgence has been for ever extinguished by "L'Union Médical du Canada."

THE CANADA MEDICAL AND SURGICAL JOURNAL

With this number we close the fourth volume of the new series of this periodical, and we desire to return thanks to our contributors who have aided the publication by preparing for its pages many important original papers. In commencing the new volume in July next, we have to announce to our subscribers that a new feature will be introduced which will greatly add to the interest and usefulness of our journal.

Our efforts have been seconded by a number of gentlemen who have assumed the task of giving us for publication translations from many foreign Journals, so that we will endeavour to keep before our readers a synopsis from foreign sources of all important articles. This will come under the heading of Translations. A reading club in connection with this work been established, and we have at command the following foreign Journals:

Archiv. für Path. Anatomie and für Klinische Medicin, (Virchow).
Archiv für Klin. Chirurgie, (Langenbeck).
Archiv (Deutsches) für Klinische Medicin.
Archiv der Heilkunde.
Archiv für Gynæcologie.
Archiv für Kinderheilkunde.
Archiv für Ophthalmologie.
Archiv für Mikroskopische Anatomie.
Centralblatt für die medicinischen Wissenschaften
Wiener Medicinische Presse.
Berliner Klinische Wochenschrift.
Revue des Sciences Medicales.
Archiv. Generales de Medicin.
Bulletin General de Therapeutique.
Gazette Hebdomadaire.
Bordeaux Médical.
L'Année Médicale Journal de la Société de Médicine de Caen et du Calvados.

Selections from these journals of scientifiic interest, and whatever is of practical value will be translated and given to us for publication. This will, we trust, increase the usefulness and give additional interest to our pages.

We have been requested by Dr. Pepper to give insertion to the folllowing circular, and as it contains matter of general interest to our readers we cheerfully comply.

UNITED STATES CENTENNIAL COMMISSION.

INTERNATIONAL EXHIBITION, 1876,—PHILADELPHIA

BUREAU OF MEDICAL SERVICE.

Owing to the very large number of persons who contemplate a visit to Philadelphia during the coming summer, it seems important that the utmost publicity should be given to all facts bearing on the sanitary condition of the city.

The fcllowing statistics, which have been obtained from the most authentic sources accessible, represent the mortality in some of the cheif cities of the world during the past four or five years :—

	Number of years.	Average population	Average total mortality	Average death rate per thousand.
VIENNA, . . .	5	648,560	20,424	31·42
NEW YORK . .	5	994,458	29,601	29.93
BERLIN, . . .	4	950,000	28,420	29.91
LONDON . . .	5	3,284,488	76,741	23.33
PARIS	4	1,851,792	42,724	23.06
PHILADELPHIA .	5	744,831	16,573	22.27

While thus showing an average rate of mortality more favorable than that found in any other city containing over 500,000 inhabitants, Philadelphia has recently (1874) attained a degree of healthfulness almost unparalled viz : with a population at the time of 775,000, the number of deaths was but 14,966, giving a death rate of only 19.3 per thousand. These very favourable results are largely due to the abundant and cheap water-supply, and to the opportunities given, even to the poorest citizens, for the enjoyment of pure country air in the great Fairmount park, which contains 2991 acres. The extent to which this is valued by the citizens may be inferred from the fact that during the year 1875, the Park was visited by over eleven million persons.

The most powerful influence of all, however, is the absence of that overcrowding of the population, which is the most fruitful source of sickness and death in many quarters of nearly all other large cities. This will be more clearly comprehended when it is remembered that the 817,488 inhabitants of Philadelphia are spread over an area of 1298 square miles, which are traversed by more than one thousand miles of streets and roads ; and that the city contains, in addition to other kinds of buildings, 143,000 dwelliug-housee occupied by families,—a number exceeding by over 40.000 that of any other city in America.

The climate of Philadelphia is also, on the whole, a favorable one, although presenting many of the peculiarities common to inland localities. The mean annual temperature of the last ten years is 53.73° Fahrenheit; the average annual rain-fall is about forty-five inches.

The following table exhibits the mean temperature of each month for the last ten years, showing that the range is far less extreme than is found in many other less favorably situated localities. :—

MEAN TEMPERATURE (FAHRENHEIT) OF EACH MONTH DURING THE PAST TEN YEARS.

January....32.72° F.	May.....63.24° F.	September..67.72° F.
February...33.12 "	June.....73.54 "	October.....56.03 "
March.....39.16 "	July.....78.74 "	November..43.34 "
April.....53.36 "	August.....75.92 "	December...33.92 "

It is thus seen that only during the months of June, July, and August does the mean temperature rise to a high point. During this period there are very rarely prevailing any epidemic diseases; and the chief mortality occurs among children, especially among the poorer classes.

The health of Philadelphia is at present unusually good. Timely efforts have been made to secure an abundant water-supply to meet the great increase in the demand which must be expected this summer, as compared with previous years. Constant watchfulness will be exercised by the authorities to maintain cleanliness, and to avoid or remove every possible cause of disease.

Within the Exhibition grounds a rigid sanitary inspection will be maintained, under the control of the Bureau of Medical Service; and thus a guarantee will be afforded that no cause of infection or disease will be allowed to occur through neglect of this important duty.

The object of this circular has been to call attention to the unusual sanitary advantages of Philadelphia, and to the preparations which have been made to ensure the highest possible degree of healthfulness during the approaching Exhibition season. It is proposed to issue at certain intervals other circulars, announcing in an official and accurate manner the sanitary condition of the city, so that entire security may be felt by all who desire to visit the Centennial International Exhibition.

WILLIAM PEPPER, M. D.,

15*th April*, 1876. *Medical Director.*

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The Montreal medical journal

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